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ASSESSMENT OF AGRICULTURAL EXTENSION, NUTRITION EDUCATION, AND INTEGRATED AGRICULTURE-NUTRITION EXTENSION SERVICES IN THE FEED THE FUTURE DISTRICTS IN MALAWI

Report on the MEAS Assessment
carried out April 2-25, 2014

July 2014



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ACRONYMS

ACDO	Assistant Community Development Officer
ADC	Area Development Committee
ADD	Agricultural Development Division
AEDC	Agricultural Extension Development Coordinator
AEDO	Agricultural Extension Development Officer
Ag Ext	Agricultural Extension
Ag-Nut	Agriculture-Nutrition
AGRESS	Agricultural Gender Roles Extension Support Services
ASI	Agribusiness Systems International
ASP	Agribusiness Service Providers
ASWAP	Agriculture Sector Wide Approach Program
ASWAP SP	Agriculture Sector Wide Approach Program Support Program
ASWO	Assistant Social Welfare Officer
BCC	Behavior Change Communication
CA	Conservation Agriculture
CAADP	Comprehensive African Agriculture Development Plan
CARD	Churches Action Relief and Development
CBCC	Community-Based Childcare Centers
CCFLS	Community Complementary Feeding and Learning Sessions
CDA	Community Development Assistant
CDCS	Country Development Cooperation Strategy
CDO	Community Development Officer
CFS	Committee on World Food Security
CG	Care Group
CGV	Care Group Volunteer
CIP	International Potato Center
CISANET	Civil Society Agricultural Network
CMAM	Community Management of Acute Malnutrition
CONGOMA	Council for Non-Governmental Organizations in Malawi
CPW	Child Protection Worker
CRS	Catholic Relief Services
CU	Concern Universal
CWW	Concern Worldwide
CSO	Civil Society Network
DADO	District Agricultural Development Officer
DAECC	District Agricultural Extension Coordination Committee
DAES	Department of Agricultural Extension Services
DAESS	District Agricultural Extension Services System
DAC	District Agriculture Committee
DARS	Department of Agricultural Research Services
DC	District Commissioner
DCAFS	Donor Committee for Agriculture and Food Security
DCSO	District Community Service Officer
DEC	District Executive Committee
DISCOVER	Developing Innovative Solutions with Communities to Overcome Vulnerability
DNHA	Department of Nutrition, HIV and AIDS
DONUT	Donor Committee on Nutrition

EAS	Extension and Advisory Services
EHP	Essential Health Package
EPA	Extension Planning Area
EMS	Extension Methodology Services
FANRPAN	Food, Agriculture, and Natural Resource Policy Analysis Network
FANTA	Food and Nutrition Technical Assistance III
FAO	Food and Agriculture Organization
FEDFES	Farm Enterprise Development for Food and Economic
FEF	Farmer Extension Facilitator
FTC	Feed the Children
FEF	Farm Extension Facilitators
FICA	Flanders International Cooperation Agency
FISP	Farm Input Subsidy Program
FLW	Front-line worker
FN	Food and Nutrition
FNO	Food and Nutrition Officer
FOSANET	Food Security Advocacy Network
FRM	Farm Radio Malawi
FTC	Feed the Children
FTF	Feed the Future
FUM	Farmers' Union of Malawi
FVR	Farmer Voice Radio
GAC	Group Action Center
CGIAR	Consultative Group on International Agricultural Research
GOM	Government of Malawi
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HSA	Health Surveillance Assistants
ICT	Information and Communication Technology
IFPRI	International Food Policy Research Institution
IP	Implementing Partner
IYCF	Infant and Young Child Feeding Practices
JFFLS	Junior Farmer Field and Life Skills
LF	Lead Farmer
LIFT	Livelihoods and Food Security Technical Assistance II
LUANAR	Lilongwe University of Agriculture and Natural Resources
MCHN	Maternal and Child Health and Nutrition
MDDA	Malawi Dairy Development Alliance
MDTF	Multi-Donor Trust Fund
MEAS	Modernizing Extension and Advisory Services
MGDS II	Malawi Growth and Development Strategy II
M&E	Monitoring and Evaluation
MGC&SW	Ministry of Gender, Children, and Social Welfare
MLIBA	Market Linkages Initiative Bridging Activity
MM	Mobile Money
MOAFS	Ministry of Agriculture and Food Security
MOED	Ministry of Education
MOH	Ministry of Health
MOI	Ministry of Information
MOLG	Ministry of Local Government

MOST	Ministry of Science and Technology
NAP	National Agricultural Policy
NASFAM	National Smallholder Farmers' Association of Malawi
NECS	National Nutrition Education and Communication Strategy
NFA	National Fortification Alliance
NGO	Non-Governmental Organization
NRC	Natural Resources College
NSO	National Statistics Office
Nut Ed	Nutrition Education
NCST	Nutrition Care, Support, and Treatment
OFSP	Orange-Fleshed Sweet Potato
OVC	Orphans and Vulnerable Children
PD/Hearth	Positive Deviance/Hearth
PLW	Pregnant and Lactating Women
PRA	Participatory Rural Appraisal
PSP	Private Service Providers
SFFRFM	Smallholder Farmers Fertilizer Revolving Fund
SHA	Self Help Africa
SILC	Savings and Internal Lending Community
SIM	Subscriber Identification Module
SMS	Subject-Matter Specialist
SOW	Statement of Work
SP	Stakeholder Panel
SUN	Scaling Up Nutrition
SUSTAIN	Scaling up Orange-fleshed Sweet Potato through Agriculture and Nutrition
SWA	Social Welfare Assistant
SWO	Social Welfare Officer
TA	Traditional Authority
TEXTS	Technology for Extension to Smallholders
THP	The Hunger Project
TLC	Total Land Care
USAID	United States Agency for International Development
USG	U.S. Government
VEM	Village Extension Multipliers
VHC	Village Health Committee
VSL	Village Saving and Lending
WALA	Wellness and Agriculture for Life Advancement
WASH	Water, Sanitation, and Hygiene

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Finally, the Team would like to thank all those who gave so generously of their time to meet with us and share their experiences and suggestions. Their input was substantive and is the backbone of the report. The authors alone accept responsibility for any shortcomings or factual errors in this report.

EXECUTIVE SUMMARY

In April 2014, at the invitation of USAID/Malawi, a MEAS team conducted an assessment of agricultural extension, nutrition education, and integrated agriculture-nutrition programs and systems in Malawi. An overarching purpose of the assessment is to investigate these programs and systems across public, private, and civil society sector providers with the aim of informing the design of an activity that will strengthen delivery of extension and nutrition outreach services in the seven Feed the Future focus districts in a coordinated and integrated manner.

The assessment methodology includes literature review, interviews and field visits, and an assessment review workshop. The team reviewed agriculture extension, nutrition, and integrated programming literature; carried-out over 55 individual and group interviews; and made field trips to three districts. The review workshop, in which over 25 stakeholders from across sectors participated, was held to present preliminary findings of the assessment and obtain further input from stakeholders.

The structures of key government agencies involved in agriculture extension, nutrition, and integrated agriculture-nutrition programming are assessed. This includes the Department of Nutrition, HIV and AIDS which is the national coordinating body for the global Scaling Up Nutrition movement and the four ministries dealing with agriculture and agricultural extension; health; local government; and gender, children, and social welfare. Each of the five agencies assessed has a structure that reaches from the national to the village level, most having staff or volunteers at the different levels, although there are typically numerous vacancies at the different levels. The levels are not the same across agencies, which contributes to coordination difficulties. Only three of the five assessed have staff at the field level with field level being the lowest level at which the agency operates, such as a village or a grouping of villages. The agriculture; health; and gender, children, and social work ministries have staff at the field level. Again, many of the established posts at this level are vacant.

While having some overlapping elements, the assessment identifies six distinct delivery systems used in the delivery of agricultural extension, nutrition, and/or integrated programming:

- The Department of Agricultural Extension has a well-articulated system which is put in place to facilitate a pluralistic, demand-driven extension system. The system builds on local government structures and adds stakeholder panels which are the primary mechanisms through which farmer demands are to be articulated through to those who can respond to demands and services responding to demands are channeled back to those articulating demand. The system also has a committee structure designed to bring all agriculture extension stakeholders at the district level together to coordinate and harmonize their activities within the district. Among others, the Department has championed lead farmer and model villages as components of its service delivery system.
- The Care Group system focuses on children under five and pregnant/lactating women. Community volunteers are trained and supported to work with groups of women to promote nutrition at the household level. This may include for example, home visits, education on

essential nutrition actions, and home gardening. Volunteers are organized into groups to facilitate their supervision and training.

- Positive Deviance/Hearth is a nutrition program targeting children who are at risk for malnutrition. The system identifies uncommon, beneficial practices by mothers of well-nourished children from poor families. The “hearth” is the venue where these practices are subsequently replicated through nutrition education with mothers of at risk-children and where supplemental feeding occurs.
- Farmer Associations are supporting farmers to progressively organize from the individual farmer to groups and clubs to larger organizations to facilitate delivery of extension advice from association extension agents and place farmers in better position for bulk purchase of inputs and marketing. In this system, which is primarily agriculturally-focused, nutrition education and messages are included as they relate to the primary focus.
- Linkages between agriculture and nutrition at the community-level are being built by combining aspects of the Care Group system with the Farmer Association system. Care Groups are explicitly linked with activities of farmer associations to create synergies among the two.
- A hybrid system, which utilizes both public and private sector agricultural extension providers, is being tried in Malawi. Public providers focus on agriculture production while private providers are supported to offer farmer skill development on a fee-for-service basis in areas such as farm finance and marketing.

A wide-array of entities in the public, private, and civil society sectors in Malawi provides agricultural extension, nutrition-related, and/or integrated services. There are also various actors who support these providers such as educational and research institutions, technical agencies, and donors. The thematic focus, programs/services, capacity, district coverage, and linkages for numerous of these entities and supporters are assessed. The public sector Department of Agricultural Extension is by far the largest provider of agricultural extension services and is also engaged in nutrition extension. At the field level, its capacity is significantly constrained by the number of vacant positions, limited opportunities for refresher training including limited training in nutrition, and poor conditions of service. The private sector—farmer unions and associations and private agriculture firms—are engaging in various nutrition-related activities. Their capacity varies but there is opportunity to further involve the private sector in integrated activities. The majority of civil society sector providers assessed are NGOs with many providing services across several sectors and sub-sectors such as in agriculture, food security, nutrition, health, women’s empowerment, and WASH. Most have significant experience working in Malawi. Their capacity is considered as the extent to which they field their own front-line workers or utilize government extension staff to implement at the field level. Results were mixed as most report both using government extension staff and hiring their own staff. The assessment was tasked with reviewing the effectiveness of programs examined. More time than was available to the team would be needed to rigorously carry-out this test. However, service providers were asked to self-assess their program effectiveness. Most responses indicate providers believe they are providing effective services but they also identified various constraints and challenges they face in doing so. Effectiveness from the perspective of beneficiaries was elicited by asking them what they learned or how they benefitted from

program participation and for their comments on weaknesses of activities. Responses given suggest many were able to identify specific practices they learned such as composting, early planting, soy processing, and exclusive breastfeeding. The major benefits mentioned were early planting results in higher yields and higher incomes and the ability to access loans from their savings and loan group. Comments regarding weaknesses included: seed comes late, we receive messages once with no follow-up, trainings are too infrequent, and there are too few nutrition promoters.

Funding for the various areas under assessment is explored. A majority of government funds for the Ministry of Agriculture and Food Security are allocated to the government Farmer Input Subsidy Program. Agricultural extension is underfunded and this is viewed as a pervasive problem, particularly over the past several years. However, some donors are investing in agricultural extension and it is receiving more attention and support than it has in the past. Although several donors fund food security initiatives, fewer support nutrition in specific. A group of seven donors have formed the Multi Donor Trust Fund as a funding channel to the public sector while the Donor Committee for Agriculture and Food Security aims to coordinate and harmonize donor support.

ICT is being embraced by all sectors in Malawi. There are examples of various uses of ICT but growing the most rapidly is the use of SMS through cell phones. Radio programs are being synced with SMS messages reminding people of when to listen to programs. The primary platform in place for SMS can be used to send/collect information customized according to users' needs. ICT is being used to track the distribution and stock of fertilizer in the Farmer Input Supply Program, to provide market information, distribute salary payments, and refer health system clients to services they may need from other sectors and sub-sectors such as nutrition or agricultural extension.

Gender is reportedly incorporated, integrated, or a cross-cutting issue in the programs, projects, and activities assessed. However, the level of gender-responsiveness varies. There are issues related to the number of women in the various service provider organizations and the number of women provided services. For recruiting, men often have overall higher levels of education than women and are thus able to meet the higher educational requirements for job placement. The dominant, yet insufficient, approach to gender in service provision is to increase women's participation in project activities such as trainings or meetings, or increase the number of women in farmer groups.

Malawi is not lacking in policies and policy-related documents to guide the agricultural and nutrition sectors, although some would benefit from review and revision. There is an overarching medium-term strategy guiding Malawi's growth and development; an agricultural investment program articulated through a sector wide approach document; an agricultural extension policy; a food security policy; a national nutrition policy; a strategy for nutrition education and communication; and a gender, HIV and AIDS strategy for the agriculture sector. Given existing human and financial resources and capacity, the overwhelming challenge is the implementation of these policies and related strategies and approaches.

For the assessment, stakeholders identify challenges and opportunities. This resulted in comprehensive lists which are organized by personal and related support issues, program capacity, infrastructure and budget, and program quality and reach. For personnel, the greatest challenge is the limited number of

public sector field level agricultural workers, their limited capacity, and the poor conditions under which they work including inadequate housing and transport. Program capacity is being supported by various committee structures and educational institutions but overall the quality and quantity of training for field level staff in particular is inadequate. This includes training for agriculture and health staff involved with nutrition. Shortage of funds is identified as a critical and on-going challenge. Program quality and reach is challenged by a number of factors already described. Across all sectors and providers, poor coordination and harmonization is identified as one of the greatest challenges to effective program delivery.

To begin addressing these challenges, the assessment overall recommends:

- Revisiting and pursuing earlier recommendations indicating the need to review government's agricultural extension program in light of resources available as too much is being attempted with too few resources.
- Recognizing that if government agricultural extension is to further integrate nutrition into its activities, its capacity as an institution and of its staff needs to be fortified. Adding further nutrition-related responsibilities to a weak system will not result in the desired impacts. Investment in an institutional and capacity development initiative is recommended.
- Revising Malawi's current agricultural extension policy, written in 2000, in light of current challenges.

By category of challenges, the assessment further recommends:

Personnel and Support Related Issues

- Developing policy addressing the government and NGO working relationships and conditions.
- Investigating re-establishment of government field-level technical assistants posts to address the shortage of field level staff.
- Focusing on increasing female staff at the area level rather than the extension planning area level.
- Studying costs of developing a fully-staffed and equipped district to provide a baseline from which to advocate for funding.

Program Capacity

- Finalizing or improving various nutrition-related training materials; reviewing educational institutions curricula with the aim of further integrating nutrition content
- Focusing on training front line workers, particularly government agricultural extensionists but also those from health and those working in community development.
- Building Malawi's "Center of Excellence" capacity to integrate agriculture and nutrition programming.

Infrastructure and Budget

- Revitalizing selected day and residential training centers to provide a clean, safe environment for nutrition demonstrations and meetings.

- Increasing budget advocacy skills among senior agricultural extension staff.

Program Quality and Reach

- Applying the widely-accepted ten guiding principles for integrating nutrition into agriculture programming and pathways analysis to reviews of existing programs and in the design of new ones.
- Broadening gender-responsiveness in program design and implementation.
- Investigating ways to improve quality of lead farmer performance.
- Expanding reach through further support to ICT.

Coordination and Harmonization

- Building public sector agricultural extension capacity to coordinate a pluralistic, decentralized extension system including their stakeholder panel and other coordinating committee system
- Establishing a district and lower level coordination fund to specifically support across sector coordination and harmonization effects at this level
- Encouraging the key entities involved in integrating agriculture and nutrition to evaluate the current committee structures and consider realignment and merging of committees

Lastly, the assessment recommends that three promising approaches and concepts be further investigated for potential refinement and scaling up. These are: farmer association and care group linkages; model villages; and agriculture-nutrition integration via the Farmer Input Subsidy Program.

I. INTRODUCTION

A. ASSIGNMENT

A five-person team, fielded by the Modernizing Extension and Advisory Services (MEAS) project, provided short-term technical assistance in the field to staff of the Ministry of Agriculture and Food Security (MOAFS), Department of Agricultural Extension Services (DAES) and the United States Agency for International Development (USAID) Mission in Malawi over the period April 2 – 25, 2014. The primary purpose of the technical assistance was to assess the effectiveness and capacity of agricultural extension and advisory systems and nutrition outreach systems across public and private services providers. The assessment was conducted with the aim of informing the design of an activity that will strengthen delivery of extension and nutrition outreach services in the seven Feed the Future (FTF) focus districts in a coordinated and integrated manner. The Statement of Work (SOW) is in Appendix A.

The team included: Vickie Sigman, MEAS Consultant and Team Leader; Valerie Rhoe, Catholic Relief Services (CRS) Senior Technical Advisor/Agriculture-Gender & Nutrition – Program Impact and Quality Assurance; John Peters, USAID, Extension & Technical Services Advisor, Country Strategies and Implementation Office, Bureau for Food Security; Theresa Banda, MEAS Consultant; and Grace Malindi, MEAS Consultant. Over the period of the consultancy, members of the team arrived and departed on different dates. Details of the team’s schedule are in Appendix B.

B. METHODOLOGY

The assessment methodology included conference calls, literature review, individual and group interviews, focus group discussions, and an assessment review workshop. Unless otherwise indicated, assessment findings are based on a mix of these data sources. Interviews and focus group discussions were held in Lilongwe and in three districts: Lilongwe rural, Mchinji, and Balaka. Depending on the activity, the team worked together or individually to carry-out the assessment.

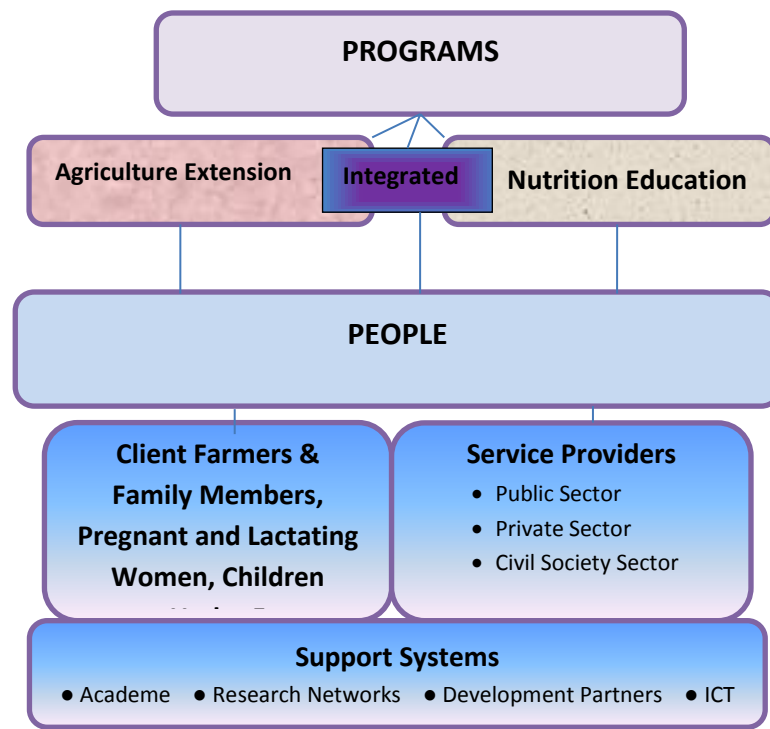
Prior to arrival in Malawi, conference calls with MEAS, team members, and USAID/Malawi were held to discuss the SOW. Among others, this served to clarify the overall conceptual frame of the assessment as focusing on agricultural extension (Ag Ext), nutrition education (Nut Ed), and integrated agriculture-nutrition (Ag-Nut) extension services. Team members noted that the SOW was rather extensive given the time available but that all effort would be given to achieving the desired results.

Decisions were made to conduct face-to-face interviews and focus group discussions in Lilongwe and at the district or Extension Planning Area (EPA) level with a wide-array of agriculture and nutrition stakeholders. Thus, guided by the SOW and also prior to arrival in Malawi, an initial list of stakeholders to interview was developed, sets of key questions to guide interviews and discussions were drafted, and selected suggested literature was reviewed. Each were later further refined as further information became available and are included as Appendices C, D, and E respectively.

To present preliminary findings of the Assessment and to obtain further input from stakeholders, a one-half day review workshop was held in Lilongwe on April 23, 2014. The workshop report is included as Appendix F.

Figure 1 depicts the Assessment Conceptual Framework. The basic framework is Programs and People. Programmatically, the framework shows the program areas considered in the assessment and attempts to show the integration of Ag-Nut. In terms of People, the stakeholder and service provider sectors assessed are identified.

Figure 1. Assessment Framework



For purposes of the assessment, stakeholders and sectors are categorized and described as follows:

(1) Client Farmers and Family Members: Farmers and farm family members participating in Ag Ext, Nut Ed, and/or integrated Ag-Nut activities/programs (i.e., services).

(2) Service Providers: Organizations/ institutions providing Ag Ext, Nut Ed, and/or integrated Ag-Nut services including:

- Public Sector Providers: government, state
- Private Sector Providers: farmers, farm households, farmer groups, farmer associations, agribusiness companies, other profit-oriented firms

- Civil Society Providers: non-governmental organizations (NGO), non-profit organizations, other civil society community-based organizations) sectors.¹

(3) Support Systems: Organizations/institutions involved in supporting both client farmers and service providers including academe, research networks, development partners (donors and technical agencies), and ICT.

C. DEFINITIONS

The team shared a general understanding of the concepts below. Specific definitions follow:

- **Agricultural extension (Ag Ext):** The traditional and linear view holds that Ag Ext transfers agricultural technology obtained from researchers and trains farmers to use it. Ag Ext has evolved considerably and is currently more broadly defined as: Ag Ext facilitates the access of farmers, their organizations, and other value chain and market actors to knowledge, information, and improved technologies; facilitates their interaction with partners in relevant institutions (such as research, education, financial); and assists them to develop their own technical, organizational, and management skills and practices (Christoplos, 2010; Davis & Heemskerk, 2012). More simply put: Ag Ext includes the support and information required to know about and adopt good agricultural practices (Hird-Younger & Simpson, 2013).
- **Food and nutrition security:** “Exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services, and care.” (Committee on World Food Security [CFS], 2012, p.1). Four dimensions of food security—availability, access, utilization, and stability—and three main determinants of nutrition security are widely-recognized—access to food, care and feeding, and, health and sanitation. (CFS, 2012).
- **Food security:** “Exists when all people at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” World Food Summit, 1996 (FAO, 2006, p.1).
- **Integrated Agriculture-Nutrition Extension (integrated Ag-Nut):** Refers to interventions or development efforts that, within the context of agriculture or nutrition specific objectives, also aim to address objectives in the complementary sector. An example of an integrated Ag-Nut extension effort is one where agricultural or nutrition investments are made to support agricultural diversification to grow and consume more nutrient-dense foods.
- **Malnutrition:** “Malnutrition in individuals can be defined as chronic (a long-term lack of nutritious food) or acute (a more sudden onset). Chronic, long-term malnutrition leads to stunting, or short stature; stunting tends to start early in life, is largely irreversible after 2 years

¹ Marketing groups, and other farmer groups, could be categorized as civil society but as they are typically profit-oriented, are categorized herein as part of the private sector.

of age, and has long-ranging effects on health and productivity in later life. Acute malnutrition leads to wasting...” (Harris, 2011, p.4).

- **Nutrition:** the process of eating the right kind of food so as to grow properly and be healthy; the act or process of nourishing or being nourished; specifically, the sum of the processes by which an animal or plant takes in and utilizes food substances (Merriam-Webster Dictionary). It is the consequence of the intake of food and the utilization of nutrients by the body. Good nutrition produces a healthy physical and physiological condition. (CFS, 2012).
- **Nutrition education (Nut Ed):** Any combination of education strategies designed to facilitate voluntary adoption of food choices and other food and nutrition-related behaviors conducive to health and well-being (Contento, 2007).

D. CONTEXT

1. Key Policies and Initiatives

While there have been important improvements in Malawi’s poverty level, over half the population continues to live below the poverty line (USG, 2013). The Government of Malawi (GOM) targets agriculture as the driver of economic growth and recognizes that food security is a pre-requisite for economic growth and wealth creation (GOM/MOAFS, 2011). This is reflected in GOM’s involvement in the continental Comprehensive Africa Agriculture Development Program (CAADP) and its linked agricultural development agenda for 2011-2015, the *Malawi Agricultural Sector Wide Approach* (ASWAP, GOM/MOAFS, 2011) as well as in its national development strategy for 2011-2016, the *Malawi Growth and Development Strategy II* (MGDS II, GOM, 2012). GOM also acknowledges the significance of nutrition in the development agenda as evidenced by its commitment to Scaling Up Nutrition (SUN) and the development of the *National Nutrition Education and Communication Strategy* (NECS, GOM, 2011). The *New Alliance for Food Security and Nutrition* partnership between Malawi, the private sector, and G8 members invests in agriculture and nutrition. Among the policy goals Malawi intends to pursue are reorganizing extension services and promoting production and utilization of diversified foods (New Alliance for Food Security and Nutrition, 2013). Collectively, these highest-level policies and strategies elevate the importance of agriculture and nutrition in Malawi’s sustainable development.

USAID/Malawi’s support is aligned with the above policies and strategies through its FTF activities (USG, 2011) and its *Country Development Cooperation Strategy* (CDCS, USAID/Malawi, 2013). The former intends to promote improved nutritional behaviors, invest in high potential value chains to develop markets and improve nutritional options, and engage with GOM to improve the policy environment. The latter has the objectives of improving social development through expanding access to quality services including those provided by MOAFS; increasing sustainable livelihoods via increased production of targeted agricultural commodities and improved nutrition for targeted communities; and strengthening citizen rights and responsibilities such as citizens’ capacity to participate in decisions that affect them.

2. Agriculture and Nutrition

Agriculture is the livelihood-base for the large majority of around 85% of Malawi's population (Chinsinga, 2012). It contributes around 75% of foreign exchange earnings and about 30% of gross domestic product (GOM, 2012). The sector is comprised of estate and smallholder sub-sectors with tea, coffee, and tobacco being dominate crops in the former and maize in the latter. Although smallholder agriculture is primarily a rainfed system, and landholding size is around .5 ha², the smallholder sector produces the large majority of total food (Chinsinga, 2012). The sector faces considerable challenges including: low productivity, climate change, limited value addition, and erosion of agricultural services, particularly of the agricultural extension services (GOM/MOAFS, 2011). In addition, limited agricultural diversification results in reliance on maize and affects dietary diversification needed as an input for improving nutritional status. GOM's agricultural development agenda, the ASWAP, is designed to tackle these challenges.

Maize is the primary staple food in Malawi and food security is equated with maize security. GOM promotes maize production for food self-sufficiency at the household and national level. Its Farmer Input Subsidy Program (FISP) has substantially improved maize yields (Pauw & Thurlow, 2014) and arguably improved food security (Naberman, 2014; Dorward, et al., 2013). In addition to maize, FISP promotes various legumes. It can be said that as food security deteriorates malnutrition increases (GOM/MOAFS, 2011). Currently, 47% of children under five are stunted, an effect of chronic malnutrition (National Statistics Office [NSO] & ICF Macro, 2011). The *Nutrition Capacity Assessment*, completed by the Department of Nutrition, HIV and AIDS (DNHA) in 2009, found nutrition disorders to be a serious problem and that there were inadequate human resources in nutrition at all levels and across all institutions in Malawi (DNHA & FAO, 2010). The Assessment recommended nutrition be integrated in other sectors in addition to the health sector. Within the framework of ASWAP, GOM focuses, among others on food security and nutrition and is committed to reducing malnutrition in all its forms. This is to be accomplished by addressing many of the factors associated with food and nutrition insecurity, such as:

Low agricultural productivity; low food intake due to lack of effective opportunity to produce or purchase nutritious foods; poor food utilization due to knowledge/skill inadequacies related to food choices, dietary diversification, and child feeding practices; poor nutrition education which currently targets women rather than both men and women; inadequate knowledge/skills/technologies around food preparation, processing, and preservation; and weak capacity of institutions to implement nutrition programs (GOM/MOAFS, 2011, p. 12).

The roles agriculture in general and agricultural extension in specific could potentially play in addressing these factors is being explored and debated internationally as well as in Malawi (Fanzo et al., 2013; FAO

² Other data indicate average landholding is 1.2 ha per household. (Third Integrated Household Survey, Malawi, 2010/11. GOM, National Statistics Office.)

2013; Herforth & Harris, 2014; Ruel & Alderman, 2013; World Bank, 2013a). Results of the conference, *Unleashing Agriculture's Potential for Improved Nutrition and Health in Malawi* underscored the importance of making cross-sectoral linkages and emphasized that the best agricultural practices will not succeed in improving the nation's nutritional status if there is not good nutritional care and access to health services (IFPRI, 2011, p. 3). Beginning in 2010, Masangano & Mthinda undertook a study of pluralistic extension services in Malawi to assess the status of the system ten-years after implementation of the 2000 extension policy began (2012). USAID/Malawi commissioned a scoping mission to examine Malawi's pluralistic extension system and to develop recommendations for strengthening extension and advisory services (Simpson, Heinrich, & Malindi, 2012). This Assessment considers and builds on results of these initiatives.

II. INSTITUTIONAL STRUCTURES OF SERVICE PROVIDERS

A general overview of the key government agencies involved in Ag Ext, Nut Ed, and Integrated Ag-Nut Extension services lays a foundation for understanding the roles and responsibilities each agency plays in delivering these services, areas for collaboration, and issues that may arise due to structural differences. This section describes the structures and staffing of these key agencies.

A. OFFICE OF THE PRESIDENT AND CABINET, DEPARTMENT OF NUTRITION, HIV AND AIDS (DNHA)

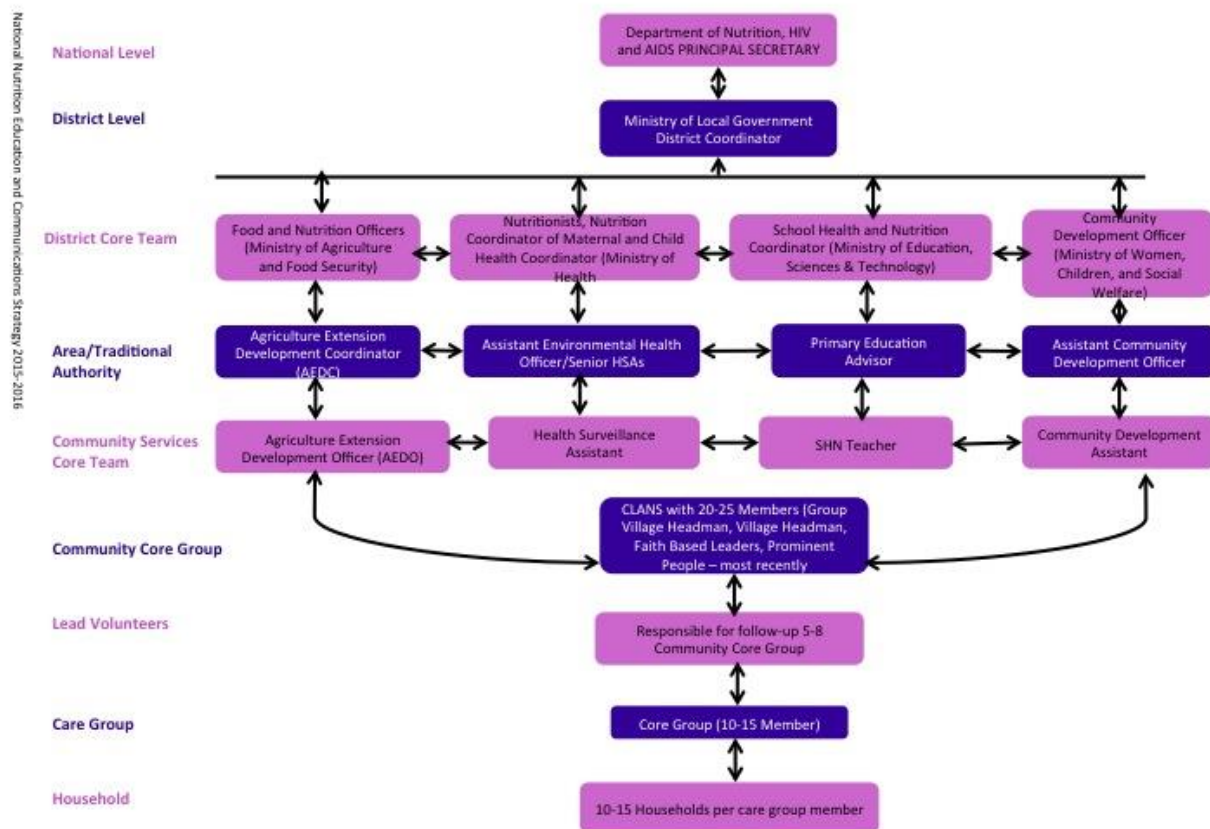
DNHA is responsible for providing “policy direction, guidance, oversight and coordination of nutrition, HIV and AIDS in Malawi” for all ages. The Department has three technical sections: (1) Nutrition, (2) HIV/AIDS, and (3) Planning. Within the Nutrition section it focuses on community nutrition, clinical nutrition, and dietary diversification. Some of its selected specific roles and responsibilities in regards to nutrition are:³

- Oversee formulation/review of the National Nutrition Policy and Strategic Plan
- Provide technical guidance/ guidelines on sectorial nutrition policies and strategic plans and mainstreaming and implementing nutrition in Government
- Mobilize resources and oversee nutrition program implementation in line with the Malawi Growth and Development Strategy (MGDS)
- Facilitate the establishment of nutrition information and surveillance systems and resource centers and track nutrition indicators
- Facilitate joint review, planning, and monitoring and evaluation (M&E) of nutrition work plans
- Facilitate capacity building and development of career structures for nutrition
- Coordinate and oversee implementation of a nutrition research agenda
- Develop and disseminate nutrition advocacy tools

³ See www.dnha.gov.mw/

The DNHA was in existence when SUN came to fruition in Malawi, and therefore, SUN coordination is housed within DNHA. With support from development partners, DNHA is developing Malawi's standardized SUN rollout framework, which is a multi-sector institutional approach to nutrition⁴. According to Malawi's SUN website, "Malawi is focusing on community-based action, with the 1,000 Special Days National Nutrition Education and Communication Strategy (NECS) being prioritized from 2012 to 2017 to reduce child stunting among children under two years to under 20% through behavior change and awareness raising at the community level. This will include a combination of means using mass and community media, family counseling, awareness raising of local leaders and capacity building of multi-sectorial frontline workers." The overall SUN implementation framework that DNHA coordinates is shown below.

Figure 2: SUN Implementation Framework



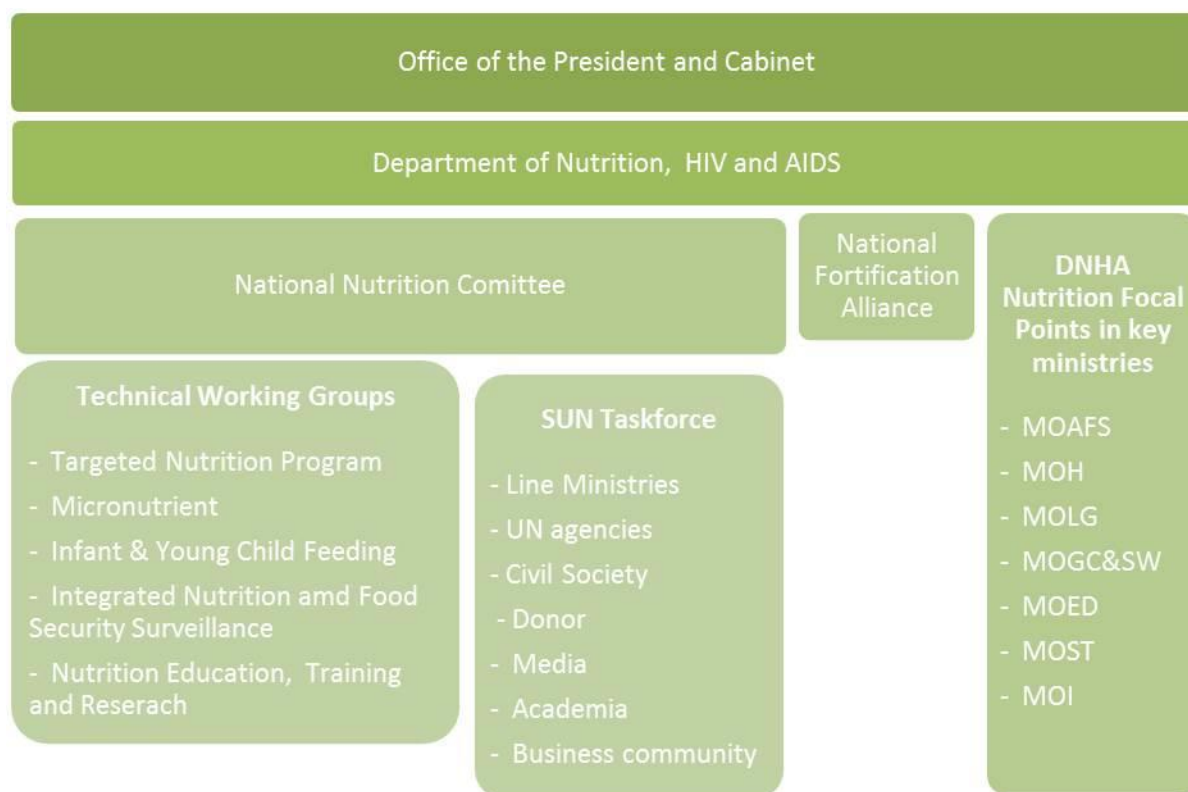
Source: GOM/DNHA (2009). National Nutrition Education and Communication Strategy.

⁴ See <http://scalingupnutrition.org/sun-countries/malawi>

In addition to the SUN implementation Framework which illustrates the roles of each Ministry at each level, DNHA coordinates a number of roles at the national level (Figure 3). There is a National Nutrition Committee chaired by the Secretary for Nutrition, HIV and AIDS and co-chaired by United Nations Children’s Fund (UNICEF). There are also three national-level nutrition committees that politically support this effort:

- Cabinet Committee on Nutrition and HIV/AIDs, chaired by the President
- Parliamentary Committee on Nutrition and HIV/AIDs
- Principle Secretaries Coordination Committee on Nutrition and HIV/AIDS, chaired by the chief secretary

Figure 3: DNHA coordination at the National Level



Source: GOM, 2013 and Malawi Scaling up Nutrition website

The Principle Secretaries Coordinating Committee on Nutrition and HIV/AIDS shares information with Cabinet Committee on Nutrition and HIV/AID. Although there is no formal mechanism for sharing information or discussions between the Cabinet Committee and the Parliamentary Committee, DNHA may invite members from all three committees when advocating on nutrition. In addition to the national coordinating committees, there are five technical working groups and the National SUN taskforce.

District SUN Taskforce are also planned⁵. Furthermore, there is a nutrition focal point assigned to MOAFS, MOH, MOLG, MOGC&SW, Ministry of Education (MOED)⁶, Ministry of Science and Technology (MOST), and the Ministry of Information (MOI). The placing of focal points within each ministry is an attempt to build that sector's capacity for integrating nutrition. It is expected that the specific ministry will absorb these staff members in their ministry, but at this time, the salary of the nutrition focal point may be allocated through the DNHA or the line Ministry. Budgetary allocation for all implementation activities is through the line ministries. Interviews highlighted that most of the line ministries have insufficient or no funds to move activities forward.

DNHA also oversees coordination of the National Fortification Alliance (NFA) to ensure consistency with national and sectorial policies and guidelines (NFA TOR, nd). NFA generates policy guidance and coordinates all activities relating to food fortification in Malawi. The Ministry of Industry and Trade is the secretariat of the NFA and its membership includes government agencies, academia, development partners, civil society and industries that produce fortified or fortifiable foods.

B. MINISTRY OF AGRICULTURE AND FOOD SECURITY (MOAFS)

The MOAFS works to promote and facilitate agricultural productivity, ensure food security, and create employment opportunities through the sustainable management and utilization of natural resources. Its structure consists of five levels: National, Agriculture Development Division (ADD), District, Extension Planning Area (EPA), and Section. At the National level, there are seven departments (Box 8). Within the Department of Agricultural Extension (DAES), there are five branches: Extension

Box 8: MOAFS Technical Departments:

- Agriculture Extension Services (DAES)
- Animal health and livestock development (DAHLD)
- Land resources conservation (DLRC)
- Crop development (DCP)
- Agricultural research and technical services (DARTS)
- Fisheries Department
- Agriculture planning services (DAPS)

Methodologies and Systems, Food and Nutrition (FN), Agribusiness Development, Agricultural Communications, and Agricultural Gender Roles Extension Support Services (AGRESS).

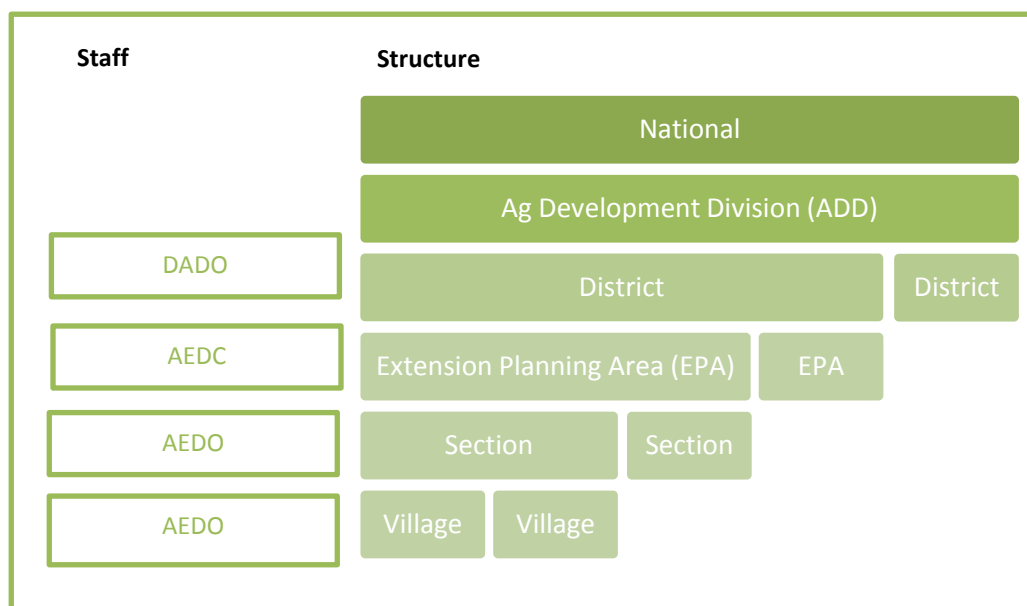
To ease management, the second level within the MOAFS structure is the *Agricultural Development Division* (ADD), which is divided by agro-ecological zones. There are eight ADDs in Malawi. The next level, is headed by the District Agriculture Development Officer (DADO). The DADO oversees the entire district-level MOAFS subject-matter specialists. A Food and Nutrition Officer (FNO) is one of the specialists at the district-level. Within districts there are *Extension Planning Areas* (EPAs), which are led by an Agriculture Extension Development Coordinator (AEDC). The frontline worker is the Agriculture

⁵Those interviewed highlighted that the multi-sectorial focus at district SUN taskforce meetings is limited, particularly in regards to agriculture.

⁶While we didn't interview the MOE, other interviewees advised that there are cases where teachers are volunteering to deliver Nut Ed messages

Extension Development Officer (AEDO). The AEDO is a generalist that covers agriculture and livestock production, HIV, gender, agribusiness, and nutrition. The AEDO often works with village-level volunteers such as lead farmers, nutrition promoters, and care group volunteers (CGV). Previously, there were Farm Home Assistants at the EPA level responsible for nutrition and supporting front-line staff, but these positions no longer exist.

Figure 4: MOAFS structure and staff for delivering agricultural extension



Notes:

- DADO: District Agriculture Development Officer
- AEDC: Agriculture Extension Development Coordinator
- AEDO: Agriculture Extension Development Officer

C. MINISTRY OF HEALTH (MOH)

The MOH is tasked with raising the health status of all Malawians by reducing the incidence of illness and occurrence of death in the population through sound delivery system capable of promoting health, preventing, reducing and curing disease, protecting life and fostering general well-being and increased productivity. The Ministry addresses the populations' nutrition needs through direct nutrition education and services.

Within the MOH structure related to the delivery of nutrition education and service delivery, the structure consists of five levels: national, zonal health support offices (ZHSO), districts, health center and village (Figure 5). At the national level,

Box 5: MOH Technical Departments and relevant units.

1. **Preventive Health Services:** Environmental Health, Primary Health Care, Community Health Sciences, Health education and EPI
2. **Clinical Health Services:** Curative services, Reproductive Health Services, and Nutrition
3. **Health Technical Support Services**
4. **Nursing Services**
5. **HIV Services**
6. **Health Planning**

there are six technical departments (Box 5). The Ministry's nutrition education and services related work is currently housed within Preventive Health Services Department and Clinical Services Department.

Figure 5: Structure and Staffing of the MOH



Notes:

- ZHSO: Zonal Health Support Officer
- DEHO: District Environmental Health Officers
- EHO: Environmental Health Officer
- AEHO: Assistant Environmental Health Officer
- SHSA: Senior Health Surveillance Agent
- HSA: Health Surveillance Agent

At the *zone level*, staff's main responsibility is to coordinate and monitor specific programs such as HIV and tuberculosis. Currently, nutrition has been assigned to a ZHSO. There are five geographic zones; each being further divided into districts. The number of districts in zones ranges from four to seven.

At the *district level*, there is District Health Officer (DHO), who has overall management of health at the district level. There is also a District Environmental Health Officer (DEHO), District Nursing Officer, and District Nutritionists. DEHOs are to supervise the frontline ministry staff—the Health Surveillance Assistants (HSAs). The District Nutritionist may report to the District Health Officer, but this position may also report to DEHOs as nutrition is coordinated through Maternal and Child Health and Nutrition (MCHN) Coordinators, who report to the DEHO. Given the low number of EHOs, some districts have made adjustments to promote HSAs to Senior HSAs to fulfill the role of EHOs, which leads to different staffing structures at the district level.

The *health center* is the next level of the structure. The staff that rolls out the Ministry's nutrition education and service delivery at this level is the Assistant Environmental Health Officer (AEHO), or the Senior HSA.

The *village* is the front-line level within the MOH. The nutrition field-level extension worker is the HSA, who is responsible for a group of villages. Their main task is disease prevention, but they are also tasked with delivering messages on other health issues, nutrition, sanitation, hygiene. The target is 1 HSA/ 1000 households (HHs). Within the MOH structure, HSAs are housed within Environmental Health Unit within the Preventive Health Department. The messages and services to be delivered by the HSAs are derived from the planning and budgeting of the four MOH departments. A functional analysis has suggested that the line of authority for the HSAs be moved from the Environmental Health Unit to the Primary Health Care Unit to better reflect their multiple roles at the community level.

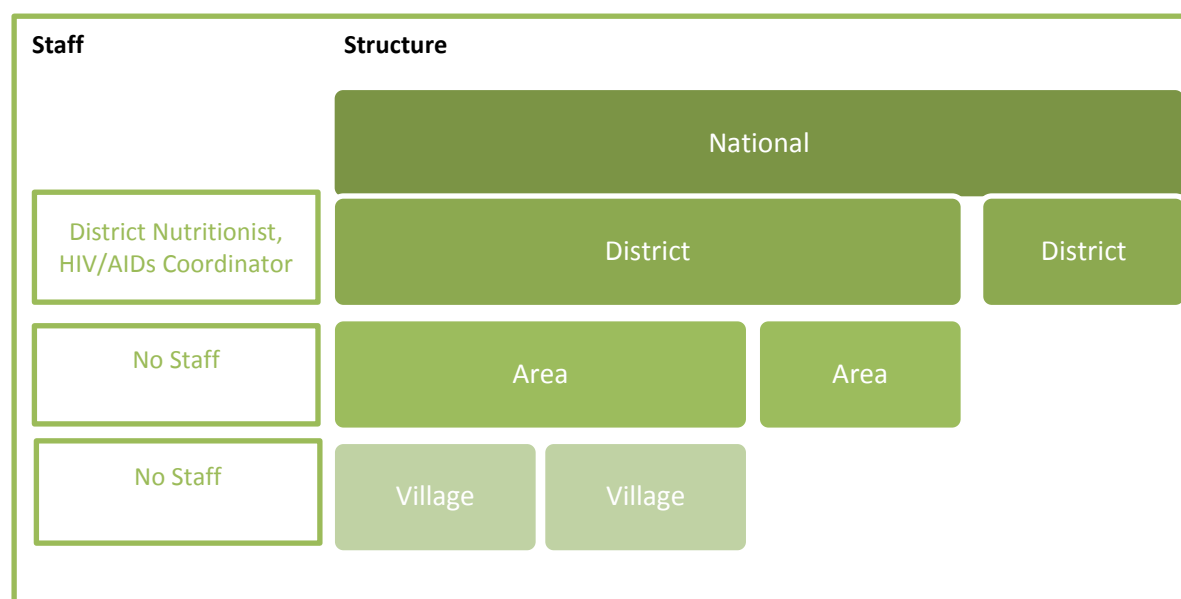
Although the government's policy does not depend on volunteers for health service delivery because of high dropout rates and lack of control, there are community volunteers that deliver nutrition-related education and services. These include the Growth-monitoring volunteers, CGV, nutrition promoters, and village health committee members.

D. MINISTRY OF LOCAL GOVERNMENT (MOLG)

This Ministry has the overall responsibility of coordinating district-level nutrition activities across the different sectors. The Ministry is structured across four levels: national, district, area, and village. At the *national* level, there is a Nutrition and HIV/AIDS Unit whose main responsibility is coordinating nutrition within the MOLG structures. At the *district* level, there is a plan to have a District Nutrition Coordination Committees (DNCC) that bring together the key technical sectors implementing nutrition such as the MOAFS, MOH, MOED, MOGC&SW, and NGOs. It is anticipated that this committee will meet quarterly to share progress and plans for the next quarter and identify areas to do joint programming to address nutrition issues. It will be facilitated by the District Coordinator.

At the *area* level, which can consist of 1-2 traditional authorities, and within the local council, there are plans for Area Nutrition Coordinating Committees. This committee will consist of frontline staff from different sectors including government frontline workers (HSAs, AEDO, Community Development Assistants [CDAs]) and NGO field agents. The committee is tentatively scheduled to meet monthly to coordinate nutrition intervention implementation. At the *village* level, there should be Village Nutrition Committees that report to the Village Development Committee (VDC). When functioning, these committees will be organized by the frontline staff.

Figure 6: MOLG's structure and staff for delivering extension



E. MINISTRY OF GENDER, CHILDREN, AND SOCIAL WELFARE

The Ministry's mandate is to "promote gender equality and protect the welfare of Malawian women, men, girls and boys to become self-reliant and active participants and beneficiaries of the national development agenda.⁷ There are three levels within this Ministry that support the gender extension services including gender messages in nutrition and agriculture. The three levels are: national, districts, and traditional authority (Figure 7).

Box 6: MOGCSW Departments

- Administration
- Community Development
- Social Welfare
- Gender

At the *national level*, there are four departments (Box 6) with the nutrition focal point from DNHA housed in the Administration Department. There are also gender desk officers in every ministry at the national level to help harmonize messages and concepts, but there is no formal mechanism of collaboration between this Ministry and other sectors.

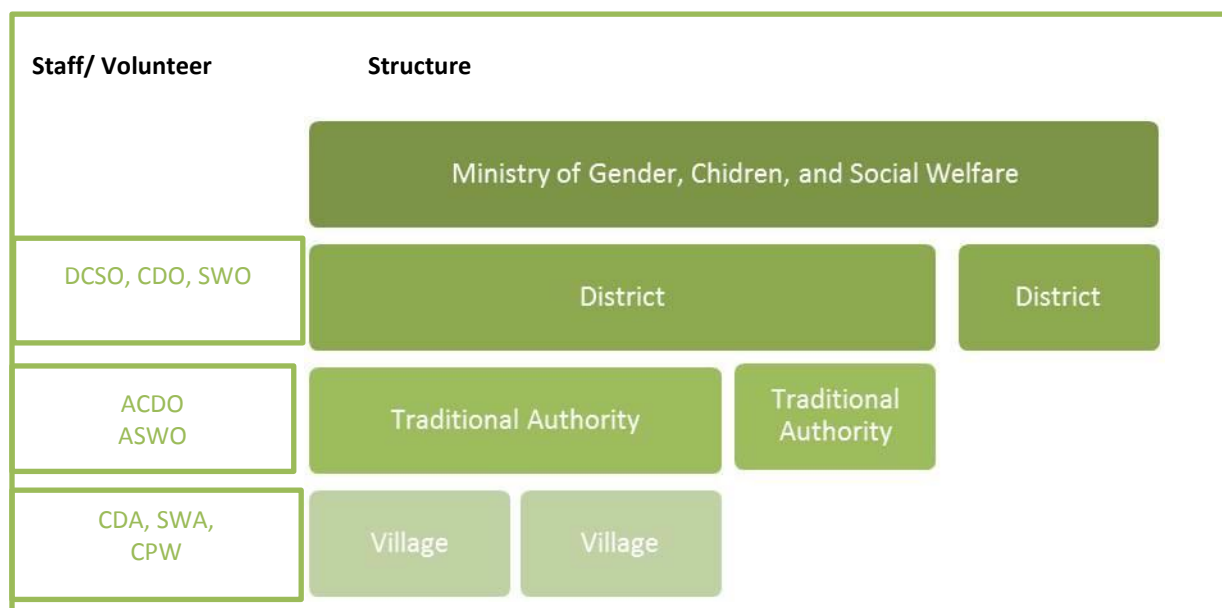
At the *district level*, there is a District Community Service Officer (DCSO), a Community Development Officer (CDO) and the Social Welfare Officer (SWO). There is not a specific gender officer. The responsibility for gender is absorbed into the position of the CDO. The CDO and SWO report to the DCSO, but most of these positions are not filled.

At the *traditional authority level*, there is the Assistant Community Development Officer (ACDO) and the Assistant Social Welfare Officer (ASWO). At the *village level*, there is the Community Development

⁷ See www.gender.gov.mw/

Assistant (CDA), Social Welfare Assistance (SWA), and Child Protection Worker (CPW). The CDA absorbs the role of gender and nutrition along with his/her other responsibilities.

Figure 7: MOGCSW structure and staff for delivering extension



Notes:

- DCSO: District Community Service Officer
- CDO: Community Development Officer
- SWO: Social Welfare Officer
- ACDO: Assistant Community Development Officer
- ASWO: Assistant Social Welfare Officer
- CDA: Community Development Agent
- SWA: Social Welfare Agent
- CPW: Child Protection Worker

III. DELIVERY SYSTEMS OF SERVICE PROVIDERS

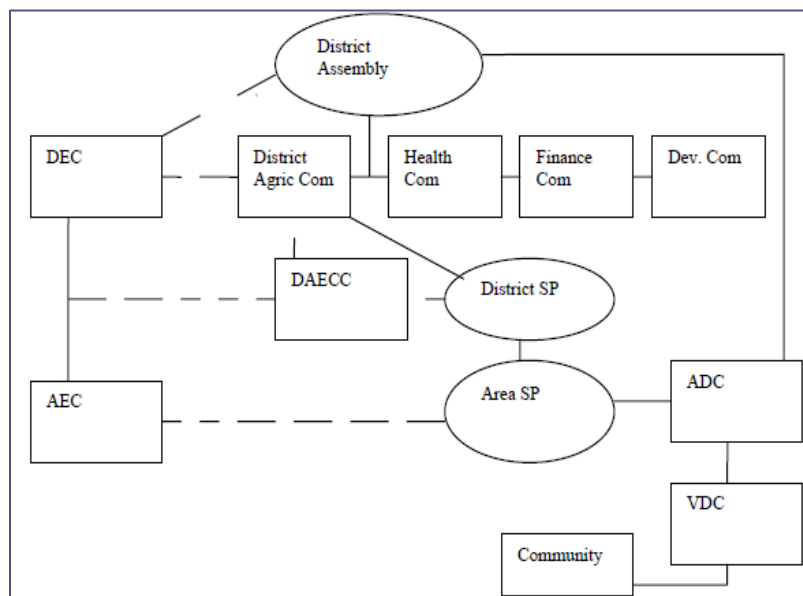
While having some overlapping elements, the assessment identifies six distinct delivery systems used to deliver Ag Ext, Nut Ed, and/or integrated Ag-Nut extension programs, projects, and activities. These are DAES, Care Group, Positive Deviance/Hearth, Farmer Association, Integrated Farmer Association and Care Group, and Hybrid Private Service Provider-Agricultural Extension.

A. DEPARTMENT OF AGRICULTURE EXTENSION (DAES)

The District Agricultural Extension Services System (DAESS) is often referred to as DAESS with a double “s” to differentiate the system from the DAES Department. DAESS is the overarching framework for GOM’s system for decentralized extension and is articulated in the *DAESS Implementation Guide* (GOM/MOAFS, 2006). DAESS is in response to the call for a demand-driven, more participatory, pluralistic extension system. The system is a framework for organizing farmer demand and service

provider response as well as for coordinating related activities of all stakeholders. It is meant to be used by all stakeholders in the extension sub-sector.

Figure 8. DAESS Linkages with Local Institutions in a District⁸



DAESS utilizes existing local government structures and adds several important elements: the District Agriculture Committee (DAC), District Agricultural Extension Coordination Committee (DAECC), and District and Area Stakeholder Panels (SP). Agriculture is not part of the service committee structure under the Local Government act of 1998 (GOM/MOAFS, 2006). Thus, the DAC is to be established to specifically deal with agriculture issues. The DAECC, as the name

suggests, is the coordinating body for agricultural extension activities at the district-level and is to, among others, set standards for service delivery, ensure that quality services are provided, register service providers, and link service providers and farmers to the District Assembly. In essence, the SPs are to serve as forums where farmer demand is to be aggregated, either responded to by stakeholders at district or area level, or transferred up through the system for responses. Responses are to filter back to the SPs. The SP structure is innovative and critical to a demand-driven system. Figure 8 shows the district linkages among DAESS structures and local institutions.

There is a new structure, the Malawi Forum for Agricultural Advisory Services (MFAAS). It operates at the national-level with membership open to public, private, and civil society sector agricultural extension and advisory service providers. It is an information sharing body concerned with coordination, standardization, quality, capacity building, and advocacy issues. It currently is not formally linked to the DAESS structure SPs, but efforts are underway to formally include MFAAS as the national-level SP.

Many of the elements of the DAESS with a double “s” are not working well or are non-existent. Some districts do not have the DACs so the DAECC is attempting to undertake that function. In some districts,

⁸ Local Government institutions: DEC (District Executive Committee) and the technical committees (Health, Finance, etc.), Area Executive Committee (AEC), Area Development Committee (ADC), and Village Development Committee (VDC).

DAECC have insufficient funding and time allotted to meet in order to fulfill its role. Some districts do not have a District SP but they do have an Area SP. Some area SPs function better than others. While the System itself is conceptually solid and offers considerable promise, implementation is weak.

In addition to the overarching framework (DAESS with a double “s”), DAES as a department uses other delivery mechanisms. DAES field-level staff are often involved in the implementation of NGO-managed projects. Thus, they are part of NGO delivery systems, several of which are further described below. Identifying and training lead farmers is reported as one of the most effective elements of DAES service delivery. The lead farmer concept is also used by many NGOs and in activities managed by the private sector. For DAES, a lead farmer is typically trained by AEDOs to master a specific technology and is willing to extend this skill/knowledge on to others in his/her community.⁹ In most DAES cases, a lead farmer is “followed” by a loosely organized group of farmers. In other cases, lead farmers interact with a specific group of farmers. In addition to building the capacity of the lead and other farmers, the concept is implemented to improve extension’s reach in light of the unrealistic large number of farmers an AEDO is expected to serve (over 2,000 per AEDO).

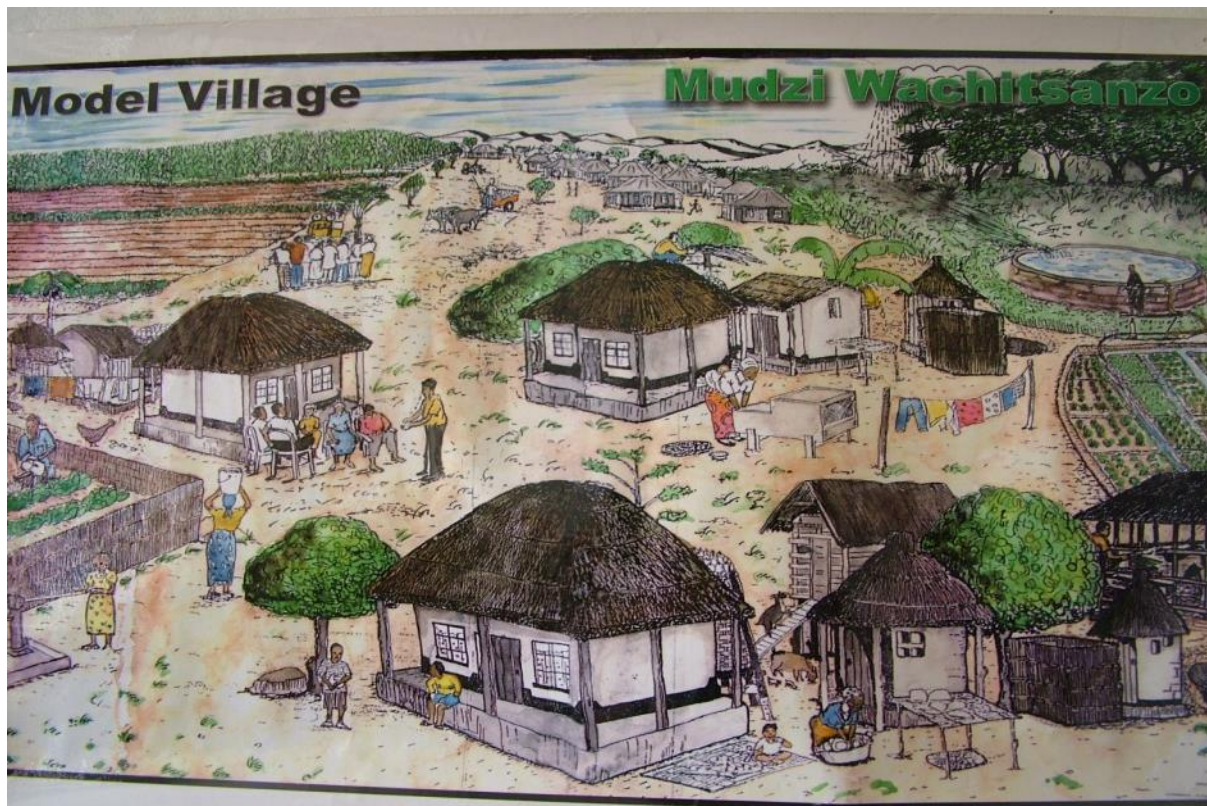
DAES uses a number of widely known delivery methods—such as one-on-one visits to farmers, demonstrations, field days, study tours, day training, residential training, print media, and radio—to extend information and extension advice to farmers and family members. Farmer field schools are reportedly used, as are Farm Business Schools. The latter provides in-depth training for farmers in farming as a business. Clusters and *mdandandas* are innovative methods; and while not unique to Malawi, these do represent new ways of extension delivery. Clusters are a number of farmers clustered in the same locality and managing the same technology. *Mndandandas* are an area of land, typically a number of contiguous fields, where specific efforts are made by extensionists and farmers to demonstrate good agricultural practices on the different crops growing on the fields.

The approach that is designed to consolidate and unify these various methods is the Model Village. A Model Village is seen as the entry-point for all extension activity. The objective is to bring the combined expertise and resources of various service providers from various sectors (such as animal health, forestry, health, education) to bear on the development of a village, which can then be used as a teaching tool for people from other villages. The DAESS provides guidelines on the use of Participatory Rural Appraisal (PRA) techniques to be used with villagers to identify priority problems in the village and develop proposed solutions to problems identified. For issues villagers themselves cannot address, providers from the various sectors are expected to assist. The methodology is designed to move villagers and villages forward to a transformational stage where they have sufficient capacity to maintain and improve overall quality of life. This is a long-term process but DAES has some experience

⁹ Within non-public delivery systems, lead farmers may not be specialized in one specific technology, but will receive training to improve their capacity in several technologies.

in its implementation. Information on the success rate of Model Villages is currently not available, although there is reportedly a success story in Salima, which deserves further attention. Figure 9 depicts a Model Village. While this is a simple drawing, it shows a number of village-level improvements such as corralled livestock, well-kept fields of different crops, water storage, a water standpipe, child mat, drying rack, a group meeting, and perhaps an mndandanda in the background.

Figure 9: Model Village



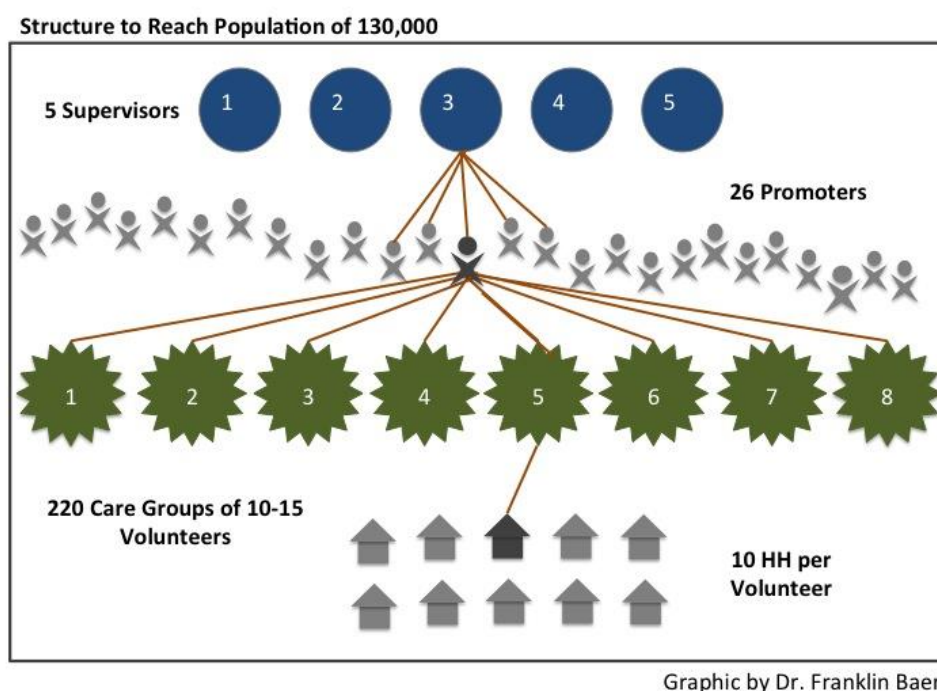
Source: MOAFS.

B. CARE GROUP

The Care Group system was developed by World Relief during the implementation of the USAID-Mozambique's Child Survival project from 1995-1998. It has been used by at least 22 NGOs and exists in at least 21 countries. It is regularly used system in Malawi by the public sector, NGOs and more recently the private sector. It was used by consortium members in USAID Improving Livelihood through Increased Food security (I-Life) and Wellness and Agriculture for Life Advancement (WALA) projects. It has been adopted as a GOM approach under the SUN Initiative, and is now being integrated with NASFAM farmer association system as described below.

In the Care Group system¹⁰, households with children under five years of age and pregnant/lactating women are divided into groups of 10-15. Each household group elects a CGV¹¹ under the guidance of a promoter. The CGV are considered community-based health and nutrition educators and are mainly women, but more recently men have been elected volunteers in Malawi. The CGV does at least one monthly health/ nutrition promotion and makes home visits. CGV come together (6-16) to form a Care Group. Each Promoter oversees 7 to 10 Care Groups and meets with the CGVs in each Care Group twice a month (Figure 10). The promoters are supervised by a NGO program staff member.

Figure 10: CARE Group System



Common topics taught to the CGV include essential hygiene actions, essential nutrition actions, key MCHN prevention behaviors, and recognition of danger signs during pregnancy and child illness¹². In Malawi, some NGOs have integrated Care Groups with Community Complementary Feeding and Learning Sessions¹³ (CCFLS), crop diversification, homestead gardening, and livestock activities. Some

¹⁰ Additional resources on the Care Group system are available at www.fsnnetwork.org/resource-library/ag-nutrition-health-linkages/care-group-difference

¹¹ In Malawi, the CGV may be referred to as the Lead Mother or Lead Father

¹² Source: [Care Group endorsement](#)

¹³ CCFLS is a strategic approach that promotes the use of locally produced, high-nutrient value crops through proper processing, preparation and preservation techniques for optimal complementary feeding to children under five years of age and a balanced nutritious diet to pregnant and lactating

other options for integration being explored are a broader look at the causes of stunting including sanitation and hygiene and pre-conception adolescent nutrition. Interviews also highlighted that there is no specific Care Group system for male CGV and there are topics that male CGV are not comfortable in teaching such as breastfeeding.

C. POSITIVE DEVIANCE (PD)/HEARTH¹⁴

The PD/Hearth system was introduced more than 20 years ago and has been implemented by many implementing partners including NGOs implementing USAID WALA. PD/Hearth has three goals: behaviour change, sustainability, and recuperation. There have been a number of reviews and evaluations that have shown mixed result.

“PD/Heath is a home-based and neighbor-based nutrition program for children who are at risk for malnutrition in developing countries. The "positive deviance" approach is used to find uncommon, beneficial practices by mothers or caretakers of well-nourished children from impoverished families. A PD/Hearth intervention begins with a PD Inquiry, during which community members discover and identify the feeding practices of neighbors who have well-nourished children. A "hearth" is subsequently established as a venue where the nutrition education and rehabilitation part of the program takes place. They practice beneficial child care behaviors and feed malnourished children with extra energy-rich/calorie-dense supplemental meals” (Early Child Development¹⁵).

The CORE Group Nutrition Working Group presented survey results at the 2013 CORE Group meeting on the state of using PD/ Hearth and recommendations for future use. Results show that PD/Hearth helps the implementers to better understand the community but it is a time consuming process. The survey also found that this system was being integrated with the Care Group system. Elements of successful implementation of PD/Hearth identified were using the PD Inquiry, quality external technical assistance, community understanding and commitment, engaging community leaders, fathers and other caregivers, follow-up visits, registration system, and including growth monitoring (Core Group 2013).

Farmer Association

The farmer association system is being used by a number of private sector entities. This is viewed as a bottom-up approach with farmers demanding organization and services. The system explained here illustrates the NASFAM approach. It has 5 levels beginning with individual farmers (Figure 12). Approximately 10-15 individual farmers come together to form a club, which is similar to a lead farmer group.

women (WALA Community Complementary Feeding and Learning Session (CCFLS) Strategic Guideline. Blantyre September 2010 Malawi).

¹⁴ See www.comminit.com/?q=early-child/node/302827

¹⁵ Accessed [Early Child Development](http://www.earlychilddevelopment.org) website on May 23, 2014



Figure 12 Farmer Association System

Clubs are formed when individual farmers request support from NASFAM to help organize a club or when NASFAM promotes its approach to existing non-NASFAM clubs. Clubs (10-15) join together to make-up a Group Action Center (GAC). A NASFAM Association Field Officer helps to form GACs. GACs are comprised of farmers who farm in the same geographic area, an area roughly equivalent to an EPA section. GACs are organized around the crop or crops the group produces and markets.

GACs are the entry points within the structure for dissemination of information and provision of services to members as well as for the bulking of member crops¹⁶. The next level, Farmer Associations, is made-up of 10-15 GACs. Associations work with a mix of crops or they can be for a specific crop. A Farmer Association is equivalent to 1-3 EPAs. Lastly, at the district level, associations in a particular geographic area are clustered into Innovation and Productivity Centers. Associations are managed by a business association officer and are represented on the District Executive Committee and DAECC.

In the actual delivery of training and services, NASFAM Field Officers work along with AEDOs at the EPA level and with lead farmers. If an AEDO is already working with a lead farmer, then NASFAM supports this lead farmer; otherwise, new lead farmers are trained by NASFAM Field Officers.

Members of Farmer Associations pay a small fee, dependent on the crop, equivalent to a minimum of \$1. Payment is either by the club or the individual. This fee supports Associations in paying their field officers (40% of field officer pay from this fee with NASFAM contributing the remaining 60%). NASFAM members are not obligated to sell their produce to NASFAM, but its commercial department does purchase produce from the farmers. NASFAM also provides inputs with a payback after harvest system.

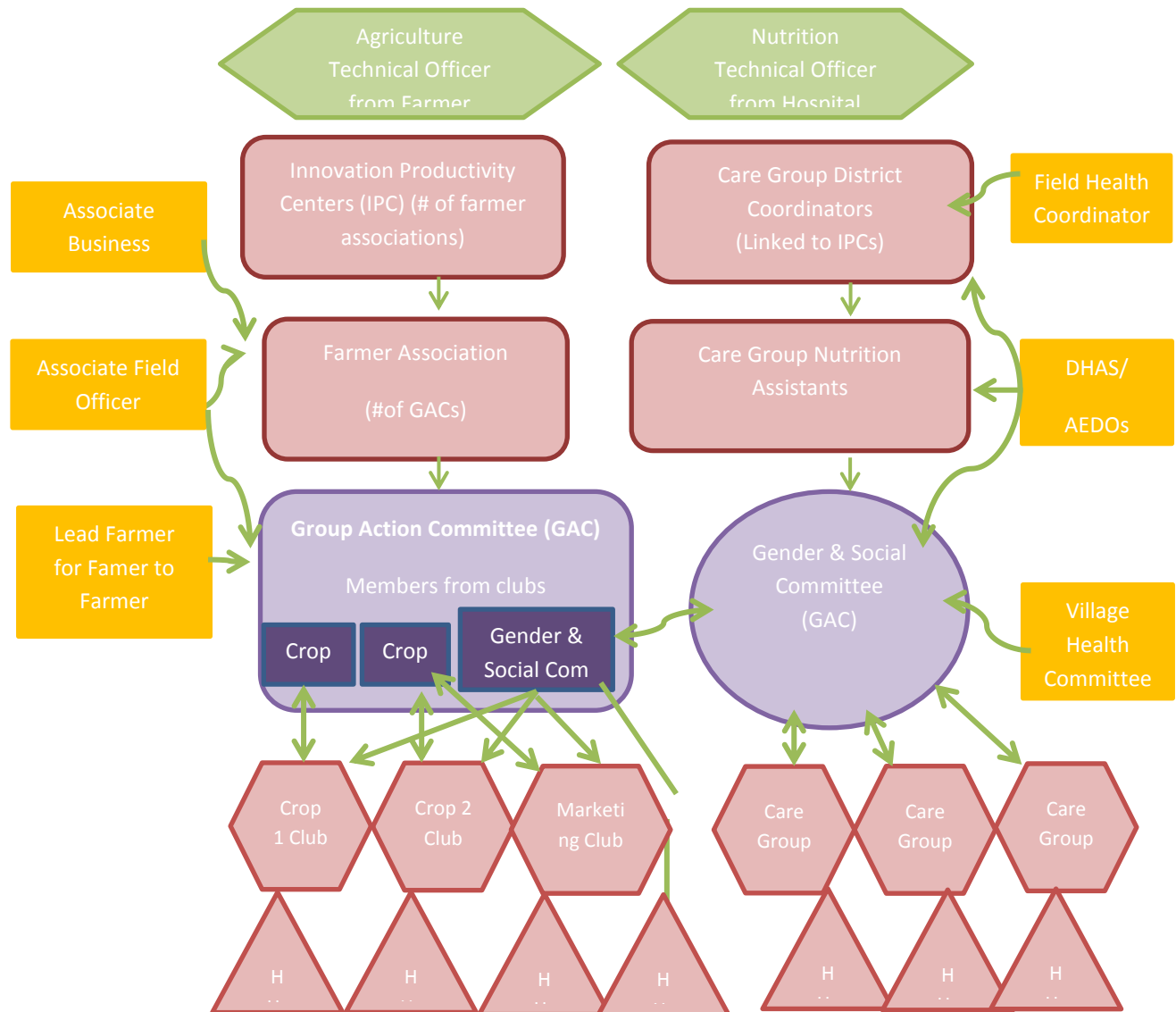
D. INTEGRATED FARMER ASSOCIATION AND CARE GROUP

In the FTF Integrating Nutrition in Value Chain (INVC) project, the Care Group is directly linked with a community-based agriculture organization (i.e., NASFAM and FUM) to enable a bridge between nutrition and agriculture at the community level (Figure 11). Explicit ties between care groups and community based farmer organization provide an opportunity for the trained community volunteers to convey both agriculture and nutrition messages to households. It is envisage that linking CGV with farmer associations will enable Care Group household to have access to Ag Ext assistance to improve

¹⁶ Source: NASFAM website < www.nasfam.org/index.php?option=com_content&task=view&id=69&Itemid=79 >

agricultural practices for nutritious crops, reduce losses during harvest and postharvest handling, processing, and storage practices.

Figure 11: Integrated Farmer Association and Care Group System



E. HYBRID PRIVATE SERVICE PROVIDER (PSP) – AGRICULTURE EXTENSION

WALA consortium partners (Box 7) piloted a Village Savings & Loan (V&SL) PSP¹⁷ and then adapted this approach for agribusiness service providers (ASPs) and community animal health workers. The ASPs received training on farming as a business, collective marketing, group management, and improved agronomic practices and then they trained marketing group members and provided market linkage technical support to marketing group.

The piloted hybrid system uses AEDOs and a PSP. The government AEDO along with lead farmers will provide knowledge and training related to agriculture production such as conservation agriculture. The PSP will offer skills on financial education, marketing and innovations to farmer associations/ groups for a small fee.

While the PSP builds his/her capacity in these skills, the project pays a stipend as a field agent. At the end of the training period and upon passing an exam, the PSP is certified. In preparation of becoming a PSP, the field agent receives training on business planning, which helps him/ her to set rates.

This system is also being piloted in Zambia. Murdock University in Australia is assessing the use of the PSP system in effectively and sustainably linking participating smallholder farmers to markets.

Box 7. Learning from the VSL PSP

After careful selection, agents are recruited. The project pays them for a limited period of time during which the agent is trained and mentored. They then undergo an examination process to assess the quality of their work and readiness to work independently from the project as a PSP. Agent certification is based on three distinct assessments: (1) feedback by SILC/VSL members from focus group discussions on the training skills and support given by the agent to old and new SILC/VSL groups; (2) analysis of their savings groups quality in terms of cycle profits, member attendance rate, number and value of loans, dropouts and savings; (3) an interview panel to test knowledge and expertise of the incumbent.

After certification, successful PSPs are trained on PSP network formation and registration. By the end of the training, PSPs ensure that they have selected leaders and adopted a network constitution in place to help them register their network with the Department of Social Welfare. Once the network is registered, it is recognized by the government. The network can then market VSL activities to interested communities in that area, even beyond the WALA activities.

As of early 2014, there were 268 PSPs: 172 females and 96 males participating in WALA. All PSPs receive revenues on a fee-for-service basis from their clients, with an average income of \$83 USD per month. The PSPs visit 20 groups per week on average, and charges \$1-2 USD per group visit.

¹⁷ Private Service Provider Implementation Manual for VS&L and Savings and Internal Lending Community (SILC) <http://pgpublications.squarespace.com/storage/pubs/microfinance/private-service-provider-implementation-manual.pdf>

IV. DESCRIPTION OF PROVIDERS AND SERVICES

The Ag Ext, Nut Ed, and Ag-Nut landscape in Malawi is populated by an array of providers delivering services in these areas. As interviews and discussions unfolded, it became apparent that most projects/programs perceived their services as “integrated” if they were engaged to any degree in both agriculture-focused and nutrition-focused activities. While the original focus of a project/activity may have been on either agriculture or nutrition, the differences in Ag Ext, Nut Ed, and Ag-Nut projects and activities are quite blurred at the field level. Few interviewees responded to a question about the percent of staff time allocated to Ag Ext and to Nut Ed in integrated projects and activities because projects and activities were reportedly not viewed nor categorized as such. With few exceptions, either agriculture or nutrition was retrofitted into existing projects/programs. The findings below only consider projects/programs and activities related to Ag Ext, Nut Ed, and/or Ag-Nut even though most of the entities interviewed are also involved in other substantive areas.

Findings are presented for entities in the public, private, civil society, and support system (i.e., technical agencies, research, education) sectors. They are organized by name of the entity, thematic focus, programs/services delivered, capacity, districts in which they currently operate, and linkages with other entities including with GOM. It was not feasible to investigate the capacity of entities in-depth. For this assessment, experience in Malawi, with nutrition-related activities in general, and whether private or civil society entities field their own front line staff or depend on GOM AEDOs for implementation are considered elements of capacity. Capacity findings for private, civil society, and support sectors should be interpreted with considerable caution as it was not possible to neither obtain detailed information nor triangulate the findings obtained. Not all entities interviewed are currently working in FTF-supported districts. However, discussions suggest they would be amenable to working in these districts and thus such entities are not excluded from the assessment. Finally, projects or programs recently completed and/or of particular interest to the assessment are included in the review.

A. PUBLIC SECTOR

The major public sector actors providing services in agriculture extension and nutrition education are described above in Section II. Although the question could be asked: to what extent can agriculture be integrated into the work of nutrition and health institutions, the conventional focus is on integrating nutrition in the work of agricultural institutions. In the public sector, integration occurring in Malawi is largely through the DAES system. Thus, DAES as a service provider is further detailed.

DAES

- **Thematic Focus:** Crops, animal health, livestock, fisheries, land conservation, nutrition
- **Programs/Services:** The structure and delivery system of DAES is described above in Sections II and III. DAES is by far the largest provider of extension services to farmers and farm family members in the thematic focus areas noted above and it is mandated to coordinate all agriculture extension activities of the MOAFS in these focus areas. Part of its mission is to coordinate all agricultural extension services including those provided by private and civil society sectors. Nutrition in DAES is centered in its Food and Nutrition (FN) branch, which trains DAES

staff to promote diversified production and diets for good health. The Food and Nutrition Branch does not have its own staff at the field level but rather works through AEDCs and AEDOs. These field-level staff, AEDCs and AEDOs, are typically generalists. Excluding fisheries, they work across the thematic areas listed above as well as in HIV/AIDS and gender.¹⁸

Some AEDCs and AEDOs have received Nut Ed training, either through the FN Branch, SUN, or collaborating NGOs. At the field-level, training material for use with farmers and family members is limited. The FN Branch has a community-nutrition handbook but it is dated and needs to be revised. Excluding the presence of an NGO-supported project focusing on integrating Ag-Nut, ad hoc integration of nutrition messages in agriculture activities at the field level during meetings/trainings with lead farmers and others is reportedly the most common approach to integration at this point. For example, NGOs provide nutrition messages, which are used by field-level staff usually in their everyday work rather than in a special nutrition project. By the nature of the activity, DAES staff promote nutrition through a range of activities including home gardens development; vegetable, fruit tree, legumes production; dietary diversification using six food groups; and improved food processing and utilization practices. Agricultural activities take the majority of field staff time. DAES staff, particularly AEDOs, are responsible for voucher distribution, inputs monitoring, and production estimates in the Farm Input Subsidy Program (FISP), GOMs program designed to reduce poverty and ensure food security which reaches roughly 50% of all farmers in Malawi (Mazunda, 2013). They have DAES managed projects to implement as well. DAES staff at the District and EPA levels also frequently work with NGOs either hand-in-hand or as implementers of NGO-managed agricultural and nutrition-related programs.

- **Capacity:** DAES, established in 1904, has a very long history of involvement with Ag Ext (Masangano & Mthinda, 2012). It also has experience delivering Nut Ed and integrated Ag-Nut activities. However, the very large majority of those interviewed including NGOs remarked on the insufficient numbers of DAES staff on-board to implement activities, the limited training available to support DAES staff, and the deplorable working conditions of front-line DAES staff including poor housing and lack of transport. All these detract from DAES capacity to deliver quality services. DAES is to be included in a ministry-wide core functions analysis that is reportedly underway as part of the ASWAP process.
- **District Coverage:** Across Malawi.
- **Linkages:** The DAESS (double SS system) links to all stakeholders at various levels as described in Section III.

¹⁸The Department of Livestock also has Veterinary Assistants. AEDOs are involved with general aspects of animal production.

B. PRIVATE SECTOR

For all private sector entities, capacity is considered as previous or current involvement in nutrition-related activities and engagement with DAES staff, particularly AEDOs.

Exagris Africa Limited

- **Thematic Focus:** Commercial agriculture firm producing, among others, paprika, chilies, and groundnuts; certified seed production; community development
- **Programs/Services:** Exagris supports development growth through business and has both a commercial arm and a development service unit. It has a large outgrower program that is technically supported by extension staff from several of its NGO partners and its own staff. It has 12 farms across Malawi. In Mchinji, smallholder farmers are invited to produce one of the commercial crops on Exagris farmland and are provided improved seed (with in-kind return after harvest) and technical advice/training (including some Nut Ed) by an Exagris extension agent. Smallholders apply knowledge and skills learned to improve production practices on their own land, which in turn enables them to provide higher-quality product to the market. Exagris facilitates linkage to the market and in cases, purchases product (e.g., from outgrowers). Exagris nutrition-related activities focus on the control and management of aflatoxin in peanuts and maize and on their commercial partnerships in processing peanuts for therapeutic and ready-to-use food. For the latter, meeting international standards is difficult and thus, they import considerable inputs to combine with locally produced peanuts. Exagris is experimenting with applying the Positive Deviance concept to identifying which practices successful and innovative farmers in a community are using. The idea is to develop farmer activities around the deviances identified to assist other farmers to learn successful practices.
- **Capacity:** Exagris is an international firm, operating in Malawi since the mid-90s. They have experience working with donors and NGOs as partners in, among others, extension and nutrition. Exagris invites AEDOs and other GOM staff to participate in activities with smallholders. The extent to which AEDOs participate depends on AEDO interests and availability.
- **District Coverage:** Estates in Rhumpi, Mzimba, Kasungu, Mchinji, Lilongwe, Salima, Mangochi
- **Linkages:** Of note is Exagris linkage with the donor and NGO community which is expected to develop further. Exagris is potentially interested in strengthening linkages with DAES staff by way of a possible internship-type program.

Farmers Union of Malawi (FUM)¹⁹

- **Thematic Focus:** Institutional development, agri-business and market access, and policy analysis and advocacy

¹⁹ Refer to Simpson & Heinrich's (2012) MEAS report on pluralistic agricultural extension in Malawi for further details.

- **Programs/Services:** An apex organization of farmers and farmer groups established in 2003 to give farmers a voice in shaping actions designed to benefit them, such as development programs, and to enable them to advocate for improvements in the agricultural landscape with GOM and others. The GOM-recognized official representative of smallholder farmers' organizations in the country, FUM currently reports a membership of 724,000. FUM began providing services to its members through emphasizing producing for the market and providing training in farm profit/loss analysis as well as linking farmers to banks/financial services. FUM is part of and is committed to participating in SUN and is a member of all ASWAP technical committees. Nut Ed is incorporated in some SUN farmer training with messages built around the slogan "A Healthy Farmer means a Wealthy Farmer" and the Six Food Groups. Via different projects, FUM is involved with bio-fortification efforts of maize, beans, and potatoes. It also implements a project designed to improve Ag Ext service delivery by strengthening district stakeholder panels.
- **Capacity:** While not a core focus of FUM activity, FUM is engaged in nutrition-related activities and thus has related capacity. FUM has brought a full-time nutritionist on-board to move its related programming forward. Each district has a farm organization facilitator who engages with DAES staff. It does not seem that FUM uses AEDOs to carry-out its activities.
- **District Coverage:** FUM is a national organization with representation of farmers from all districts. The district stakeholder panels strengthening project is carried-out in Kasungu, Rhumpi, and Mzimba.
- **Linkages:** FUM collaborated with DNHA in the development of Nut Ed materials. Relationships have been developed with the donor community as evidenced by FUM implementation of various donor-funded projects. FUM is currently working on establishing affiliate farmer unions at the district-level and engages with GOM to do so.

Illovo, Ltd.

- **Thematic Focus:** Commercial agriculture firm specialized in sugar and related downstream products.
- **Programs/Services:** Malawi's sole sugar producer, Illovo, signed a formal agreement in 2010 to being fortifying their sugar with Vitamin A to contribute towards elimination of Vitamin A deficiency. The prevalence of Vitamin A deficiency is highest among Malawi's children. Through joint planning with GOM and other stakeholders and with donor support Illovo revamped its factories in Malawi to meet fortification standards. Ag Ext is not vertically integrated in Illovo but rather technical assistance and extension for cane production is delivered by a separate entity with Illovo purchasing the cane for processing, fortification, and distribution through their distributing channels. An Illovo team visits major distributors, providing Nut Ed around the importance of Vitamin A and proper storage to ensure Vitamin A preservation.
- **Capacity:** Illovo is a global actor in the sugar trade. The delivery of Nut Ed is not one of its core functions but it has some experience in this area. Illovo does not engage directly with AEDOs.
- **District Coverage:** Across Malawi.
- **Linkages:** Illovo is a member of the Fortification Alliance and of several of the SUN structures including the nutrition committee and the micronutrients technical working group.

Malawi Milk Producers Association (MMPA)

- **Thematic Focus:** Milk, animal husbandry
- **Programs/Services:** MMPA provides training, extension services, advocacy, and artificial insemination services. MMPA is the umbrella organization of the three regional dairy associations (Shire Highlands, Central Region, and Northern Region). It delivers service to around 17,000 members (about two-thirds male, one-third female) with the mission of scaling-up dairy production to alleviate poverty and increase nutritional diversity. Its members are primarily smallholders having one or two dairy cows each. The three associations operate over 50 milk-bulking groups. Farmers deliver milk every day to the bulking center for cooling where it is collected every other day by one of five dairy processors for processing and sale. DAES and other extension workers, along with MOAFS Assistant Veterinary Officers, work with lead farmers to organize groups and facilitate relevant training. MMPA also has a dairy farm where individuals receive two-weeks of in-depth training in producing milk for the market and in value addition. A newsletter provides extension advice on different topics. MMPA integrated Ag-Nut programming focuses on increasing milk consumption. A pilot program with ten bulking groups to encourage own-family consumption of milk is currently being tested. Messages are being developed as part of a *one glass per day/person* campaign targeting school children in particular and the public in general.
- **Capacity:** MMPA has experience in integrating nutrition messages in its programs. To what extent AEDOs are directly involved in MMPA activities is not clear.
- **District Coverage:** Districts in the three regions, details unavailable.
- **Linkages:** In addition to linkages with DAES and the Department of Animal Health and Livestock, MMPA has linkages with the donor community and the private sector. The latter largely via sourcing animals for crossbreeding and equipment/product for artificial insemination. Linkages with NASFAM are underway to promote farmer-to-farmer brokerage and exchange (e.g., trading manure and milk for soy and groundnut residues).

National Smallholder Farmers' Association of Malawi (NASFAM)

NASFAM as a delivery system is earlier described. Following are further details.

- **Thematic Focus:** Focus is on Farming as a business and on cash and food crops.
- **Programs/Services:** NASFAM is the largest, smallholder-farmer owned membership organization in Malawi providing various services to its members including extension advice. It has a membership of over 100,000. NASFAM has two sections, Commercial activities and Development activities. The former, a registered for profit company, emphasizes marketing of inputs to farmers and marketing of produce from farmers. The latter, a legally registered NGO, supports community development and capacity building activities with its membership. NASFAM has a food and security program which aims to ensure food and nutrition security for 75% of its members. Within this program, crop diversification is promoted at the household level and during the off-production season lead farmers, members of NASFAM's gender committee, nutrition volunteers, and others come together for NASFAM supported nutrition-

related training (e.g., food preparation and preparation, Six Food Groups). Those trained subsequently train other people in their communities.

- **Capacity:** Legally registered in 1998, NASFAM's prior activities included work with smallholder tobacco producers. NASFAM has experience implementing nutrition-related programs and it is a key player in current Care Group and farmer association integrated Ag-Nut extension delivery systems in Malawi. AEDOs and NASFAM collaborate closely at the field-level and to some degree, NASFAM relies on AEDOs for assistance in training and organizational mobilization.
- **District Coverage:** A majority of districts.
- **Linkages:** Linked specifically through fieldwork with GOM, via marketing and input supply with the private sector, and through program activities with the civil society sector.

Development Alternatives, Inc. (DAI)

DAI is a private-sector entity contracted by USAID to lead the implementation, along with other partners, of the *Integrating Nutrition in Value Chains* (INVC) project. The following describes the INVC project.

- **Thematic Focus:** Soybean, groundnut, and dairy value chains; home gardens; WASH, complementary foods for young children, nutrition education
- **Programs/Services:** INVC provides training, extension, and other technical assistance to smallholder farmers to support their commercial agriculture potential in order to increase their income, improve household diet, and improve women and children's nutritional status. INVC adopts an innovative delivery model that links CGs and farmer groups (referred to as clubs) who are part of the National Smallholder Farmers' Association of Malawi (NASFAM, further discussed in other parts of this assessment). CGs are engaged in nutrition education and nutrition-related behavioral change while NASFAM is the platform for delivery and discussion of INVC promoted agricultural messages. NASFAM also provides training on collective marketing and serves to link farmer to markets.
- **Capacity:** DAI was founded in 1970. A global development company, DAI has implemented projects in over 160 countries around the world. DAI has the experience and expertise to implement integrated Ag-Nut programs. INVC invites AEDOs to training but in large part uses NASFAM-paid Association Field Officers staff, and/or lead farmers to deliver extension advice to farmers.
- **District Coverage:** Lilongwe, Mchinji, Dedza, Ntcheu, Balaka, Machinga, Mangochi
- **Linkages:** INVC links with the newly organized soybean association and has developed linkages with various private-sector buyers and market information points as well as with private-sector ICT providers.

C. CIVIL SOCIETY SECTOR

For civil society sectors, capacity is considered qualitatively as (1) the level of experience of the entity in terms of years in Malawi or year of establishment and (2) the extent to which it fields its own front-line workers or utilizes DAES staff to implement its field-level work.

AfriCare

- **Thematic Focus:** Agriculture and food security; nutrition; child health; women's empowerment; water, sanitation, and hygiene (WASH); behavior change communication (BCC); human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- **Programs/Services:** Under the *Wellness and Agriculture for Life Advancement* (WALA) project, AfriCare provides training and extension services in agriculture and nutrition. In agriculture, lead farmers are trained, largely in conservation agriculture (CA) (promoting cassava, pigeon peas, and sweet potatoes). Marketing training is carried-out with project-organized marketing groups. As a train-the-trainers strategy, some training is provided by DAES extension staff in kitchen gardening for dietary diversification to improve nutritional status. Various community and GOM stakeholders—including community health providers, Health Surveillance Assistants (HSA), members of CGs such as lead mothers/fathers are trained in the PD/Hearth approach and other subjects.²⁰ The project also supports the development of savings and loan groups. With CGs, AfriCare encourages crop diversification such as cassava to bridge through the lean period and soybeans for soymilk. AfriCare promotes the six food groups to those with HIV to improve their nutritional status. In the *Improving Income and Nutrition in Eastern and Southern Africa by Enhancing Vegetable-based Farming and Food Systems in Peri-urban Corridors* (VINESA) project, vegetables are raised for diet diversification and for the market. The focus is on youth who are trained in production, marketing, and the nutritional content of vegetables.
- **Capacity:** AfriCare has been operating in Malawi since 1985. It is an implementing partner (IP) on the WALA project. It seems AEDOs are engaged in delivery of services but AfriCare also has some of their own staff who are Ag Ext agents, although it is not clear if these are supervisory or FLW.
- **District Coverage:** Mulanje, Mchinji
- **Linkages:** At the national-level, AfriCare participates on DNHA committees and task forces. At the district level, quarterly review meetings are held with the DEC and collaboration is reported with MOH and MOAFS staff as well as with the ADC and health committees. At the village level, there is interaction with VHCs and HSAs.

Catholic Relief Services (CRS)

- **Thematic Focus:** Agriculture, natural resources management, maternal and child health, nutrition, HIV, microfinance, peace, WASH
- **Programs/Services:** CRS is the lead on the WALA project and provides integrated services in organizational development, training, and extension services in agriculture and nutrition. Underpinned by a CA approach, producer, agribusiness, and marketing groups are organized. These groups are supported with extension activities through CRS trained and supported lead farmers and other volunteers such as Farm Extension Facilitators (FEF). With the livestock

²⁰ Refer to earlier sections of this report for details of CG (Care Groups) and PD/Hearth (Positive Deviance/Hearth) Models.

groups, CRS promotes a fee-for-service model whereby FEF, and/or other entrepreneurial volunteers, are graduated and trained as Private Service Providers (PSP) to progressively move toward charging for their services. Using the CG model, both men and women volunteers—who are full-time and receive a benefits package—are trained to support CGs. VSL are also promoted. Regarding integration in specific, around 75% of households in CGs are also in producer groups suggesting significant Ag-Nut integration. However, in cases, the cross-fertilization of specific practices/knowledge/skills is less than desired. For example, although mulching is being promoted via CA, the practice is less frequently used in kitchen gardens even when the gardens are wilting due to lack of moisture.

- **Capacity:** CRS began work in Malawi in 1997. As lead partner on WALA, CRS has experience in overlaying agriculture and nutrition programming. The extent to which the WALA project is implemented at the field-level by CRS and its partners' staff or by AEDOs is not entirely clear. Available information suggests CRS does not post many of their own staff at the field-level, nor under WALA relied on AEDOs to implement, but rather trained community members as extensionists.
- **District Coverage:** Balaka, Machinga, Zomba, Chiradzulu, Mulanje, Thyolo, Chikwawa, Nsanje
- **Linkages:** At the national-level, participation is substantive. CRS has been involved in revision of the national micronutrient strategy, in the development of the National Nutrition Plan, and in development of nutrition-related teaching materials. CRS participates on SUN committees and in UN Cluster meetings as well as engaging with the DEC and Traditional Authorities (TA). Due to its market-focused activities, CRS develops linkages with the private sector.

Churches Action Relief and Development (CARD)

- **Thematic Focus:** humanitarian response, advocacy, food security and livelihoods
- **Programs/Services:** CARD, a humanitarian church-based organization, under a disaster mitigation project is working on a nutrition project with MOH supporting the Essential Health Package and working closely with HSAs. They are building the capacity of health workers; promoting CA; small-scale irrigation; agroforestry; fish farming; and savings/loan groups. These activities are underpinned by nutrition education on utilization of the food grown or raised via the project. Even during emergency relief food distribution, CARD offers related Nut Ed. In agriculture development, using a farmer-led extension approach similar to the lead farmer approach, CARD links producers to market and assists farmers with value addition. For example, in Mchinji, farmers growing groundnuts are being trained to process product into groundnut paste, fetching a higher price for their product. Nut Ed is part of the package of these agriculture development focused activities. CARD works with savings/loan groups through a self-help project in which primarily women participate. CARD facilitates group development and growth with members being trained to have full decision-making power over funds and VSL terms.
- **Capacity:** CARD is a member of the ACT Alliance, a coalition of more than 140 churches and affiliated organizations working together in over 140 countries. Formed in 1995, CARD is based

in Blantyre. CARD advises that because of the limited number of GOM field-level staff, they have their own FLW staff that engage with AEDOs and HSAs.

- **District Coverage:** Dowa, Nsanje, Mulanje, Phalombe, Mchinji, Chiradzulu
- **Linkages:** CARD follows GOM structures at the district level and reports through the same structures as the line ministries. For planning purposes in particular, CARD works through the DEC and holds subsequent meetings with the different technical departments (e.g., health, agriculture, irrigation, etc.).

Civil Society Agriculture Network (CISANET)

- **Thematic Focus:** NGO coordination, policy research, advocacy. Five platforms are established, each of which has an extension component, which is coordinated with DAES. These are (1) Livestock and Dairy Development, (2) Nutrition and Social Protection, (3) Budgeting and Advocacy, (4) Climate Smart Agriculture and Irrigation and (5) Marketing and International Development.
- **Programs/Services:** CISANET carries-out advocacy and networking activities around the five above themes. It provides some training for NGOs in advocacy. CISANET does not provide direct services to farmers but rather its aim is to promote agricultural development and sustainable livelihoods for the poor by influencing desired change in policies, practices and attitudes of Government, Donors, Civil Society and Private Sector through effective advocacy and networking. For example, CISANET in collaboration with several of its member organizations recently sponsored an Agricultural Policy Dialogue meeting where results of two commissioned studies were presented: *Farmer Perceptions and Household Impact of the FISP* and *FISP Budget Tracking Study*.²¹ A study of the status of *Extension Service Charters*, agreements between service providers and clients, is currently underway.
- **Capacity:** Established in 2001.
- **District Coverage:** Majority of activities currently at the national level. In process of developing a Civil Society Organization (CSO) Network at the district-level to coordinate CISANET district activities and provide a platform for input into policy issues from the district-level.
- **Linkages:** Works toward developing and strengthening linkages with and among public, private, and civil society sectors. Thus, have linkages to the different sectors through its 104 members and through various other partners including the Food Security Advocacy Network (FOSANET). It is the local node for Food, Agriculture, and Natural Resource Policy Analysis Network (FANRPAN) (CISANET, 2012).

Civil Society Organization for Nutrition Alliance (CSONA)

- **Thematic Focus:** health advocacy, knowledge sharing
- **Programs/Services:** CSONA, a component of the SUN system earlier described, is a local organization strengthening the role of civil society to take the lead in influencing and supporting national nutrition efforts through dialogue and advocacy. Recently through radio interviews and

²¹ See www.cisanetmw.org/index.php/events1/106-agriculture-policy-dialogue

speaking engagements CSONA requested candidates for the May 2014 election to sign a pledge that they will include and prioritize nutrition in their agendas after they are elected. CSONA intends to track results of pledges collaboratively with DNHA.²² CSONA works on harmonizing Nut Ed messages with members of the alliance. The organization is involved in mapping nutrition implementers in the target districts. This activity is underway. CSONA convenes monthly nutrition platform meetings for knowledge exchange and lessons learned.

- **Capacity:** Began operations in May 2013.
- **District Coverage:** Dedza, Mchinji, 15 districts under WB funding.
- **Linkages:** As part of the SUN framework, links with all levels of GOM, although primarily in the health sector. Current membership of 26 CSOs and farmer associations. Concern Worldwide (CWW), international NGO described below, is housing the secretariat until CSONA becomes an independent entity.

Concern Universal (CU)

- **Thematic Focus:** food security and livelihoods focused on agriculture including marketing, economic empowerment, nutrition, human rights, and gender; health, WASH
- **Programs/Services:** Provision of training and extension through an integrated food security and livelihoods program. Using a system similar to lead farmers, called Village Extension Multipliers (VEM), CU trains VEMs to disseminate improved technologies to other farmers, through farmer demonstration plots. For health and nutrition, HSAs and other community volunteers are trained to deliver related messages.
- **Capacity:** International NGO, began working in Malawi in the late 1980s. CU works with AEDOs who are involved in project implementation but CU also has its own FLWs because of insufficient numbers of AEDOs at the EPA level to provide the targeted services.
- **District Coverage:** Dedza, Balaka, Thyolo, Phalombe, Mulanje
- **Linkages:** CU follows government structures especially those of the MOAFS as well as with TAs and engages with the DAECC and the district and area stakeholder panels. Joint planning and project reviews with government counterparts are carried-out at the community level and with the DEC. These coordination and feedback meetings at all levels are convened and supported by CU. CU collaborates with the SUN structure and with private sector actors such as FUM, NASFAM, input dealers, and market traders.

Concern Worldwide (CWW)

- **Thematic Focus:** nutrition, maternal and child health, HIV/AIDS, agriculture development, CA
- **Programs/Services:** CWW provides training, extension services, and other technical assistance. The organization has a portfolio of agricultural projects that integrates elements of nutrition.

²² See www.capitalradiomalawi.com/index.php/component/k2/item/1187-malawi-polls-aspiring-leaders-lured-to-fight-malnutrition

Under the *Food, Income, and Markets Project* nutrition security is addressed through dietary diversity and increased availability of food. Kitchen garden promoters are trained to assist lead farmers to establish and teach others how to plant and maintain kitchen gardens. This is coupled with a savings/loan activity. As well, CWW trains AEDOs who largely implement the project by training lead farmers in CA and other subjects such as irrigation and livestock rearing. Through a newly-awarded project, *Support to Nutrition Component*, a component of the *Malawi Nutrition and HIV/AIDS* project, CWW focuses on selected services known to contribute to the reduction of child stunting and maternal and child anemia. Working with CGs, and in addition to kitchen gardens and livestock rearing, efforts will be made to further production and use of indigenous plants to promote dietary diversity.

- **Capacity:** CWW has been operating in Malawi since 2002. While it is unclear, CWW appears to implement some of its activities through AEDOs with others implemented by CWW hired and supported FLWs.
- **District Coverage:** Lilongwe, Nkhosakota, Nsanje, Mchinji
- **Linkages:** CWW works through VDC to identify project beneficiaries and engages with the Directorate of Planning, District Commission. Relative to the private sector, CWW pilots an approach with groundnut farmer cooperatives to work with the auction holding exchange; has facilitated contract farming for several niche crops; and links paprika growers with Exagris for marketing purposes. They also have developed linkages the International Potato Center (CIP) on OFSP and Malawi's research station investigating biofortified cassava.

Feed the Children (FTC)

- **Thematic Focus:** Child-centered organization focusing on food and nutrition, livelihoods, WASH, and health and education.
- **Programs/Services:** Training, extension, and other technical assistance (e.g., promotion of Community-Based Childcare Centers [CBCC]). Partnering with Total Land Care (TLC) and World Relief, FTC implements the Tiwalere project targeting orphans and vulnerable children (OVC). The project has several components designed to improve food security and access to nutrition, education, clean water, sanitation and sustainable agricultural development. The CG model is used as a primary mechanism for delivery of key health and nutrition messages along with a school-feeding program at the CBCCs and promotion of VSL. FTC trains community-based promoters, along with field-level GOM staff (e.g., AEDO, HSA, CDA), who in turn train CGs. TLC leads the food security component, which addresses crop diversification through CA with an emphasis on irrigation. Linked with the CBCCs, community volunteers are trained in these food security areas by TLC staff to reach their own communities with this information. OVC households receive gratis inputs of cassava cuttings and OFSP slips and are expected to leverage these inputs to others in the community through a pass-on approach. Some households also receive fruit tree planting material. VSLs, comprised of household members also involved with CBCCs, are promoted in the food security component.

- **Capacity:** Formed in Malawi in 2010. FTC implements some of its activities through GOM field-level staff but it does not seem that AEDOs are directly involved in implementing agriculture activities.
- **District Coverage:** Lilongwe, Ntchisi, Dowa, Salima, Nkhotakota, Chitipa, Rhumpi, Mzimba, Nkhata Bay, Likoma
- **Linkages:** FTC is involved with SUN committees at various levels. The organization supports joint visits to beneficiaries by FTC and GOM staff. For vitamin fortification, FTC dialogues with the Malawi Bureau of Standards. Several banks have funded some equipment used in FTC supported projects such as fortification equipment.

FHI 360

- **Thematic Focus:** FHI 360 adopts an integrated approach to human development and provides services in a wide-range of practice areas. Those most pertinent to this assessment include: health, nutrition, economic development, civil society, research, and gender.
- **Programs/Services:** FHI 360 implements two related projects: *Livelihoods and Food Security Technical Assistance II* (LIFT) and *Food & Nutrition Technical Assistance III* (FANTA). LIFT's goal is to build a continuum of care for people living with HIV and other vulnerable households by increasing their access to economic strengthening, livelihood, and food security opportunities to improve their economic and health status. A key integration concept is linking clinical health and nutrition services to community-based services (CBO), such as Ag Ext, to support healthy lifestyles and diets. LIFT is piloting a Civil Society Network ICT-based system, further discussed in the ICT section of this report, which will refer those seeking assistance to various service providers in the network based on their responses to a set of diagnostics including Progress Out of Poverty Index and Household Hunger Scale questions. The complementary project, FANTA, includes support to the MOH to develop national guidelines for nutrition care, support, and treatment (NCST). Lessons learned from LIFT's community-based activities will be incorporated in training materials based on the NCST guidelines. In turn, training materials will be used to train various service providers, first in pilot districts (Balaka and Karonga) and later scaled-up to other districts.
- **Capacity:** FHI 360 has been working in Malawi since the early 2000s. LIFT's referral system has yet to be launched. To what extent AEDO and/or other GOM field-level staff will be utilized in project implementation has yet to be determined.
- **District Coverage:** Balaka, Karonga
- **Linkage:** During the planning phase, meetings were held with district and field-level GOM staff from several of the technical departments including DAES. It seems strongest linkages have been made with Social Welfare. FHI 360 engages with the USAID *Applying Science to Strengthen and Improve Systems* Project to conduct research on health system quality improvement. Private sector linkages have been developed around ICT with Malawi's mobile phone companies.

Jhpiego²³

- **Thematic Focus:** health services, Nut Ed
- **Programs/Services:** *Support for Service Delivery Integration* (SSDI) is an umbrella project which has three components and is implemented by a consortium of international and national NGOs. Jhpiego leads the implementation of SSDI-Services which focuses on improving access to health services and enhancing the quality of health care through training, clinical mentoring, supervision, facility improvements, and increasing community participation for improved health outcomes. The other two complementary components, not reviewed in this assessment, are *SSDI-Communications* (develops and provides BCC and other educational materials) and *SSDI-Systems* (centered on policy health governance, systems). All support six areas of Malawi's Essential Health Package (EHP): maternal and child health, malaria, family planning and reproductive health, HIV/AIDS, tuberculosis, and nutrition. SSDI-Services uses MOH service delivery points (such as antenatal care and growth monitoring clinics), CGs, and Community Leader Action Group on Nutrition (CLANS)—chaired by Group Village Headman and comprised of TA, religious, and other important leaders—as entry points for delivery of Nut Ed and EHP key messages and campaigns. DNHA is responsible for the establishment of District Nutrition Coordination Teams. This core team is responsible for organizing and training field-level staff (e.g., AEDOs, HSAs, teachers, CDAs) with SSDI-Services support.
- **Capacity:** Jhpiego has been working in Malawi since 1999. The extent to which AEDOs and/or other GOM FLWs are used to implement SSDI is unclear. Engagement with AEDOs reportedly varies based on personalities, level of commitment, and issues related to allowances. However, SSDI-Services does provide related training for various GOM FLWs including AEDOs.
- **District Coverage:** 15 districts: Chitipa, Karonga, Kasungu, Nkhosachota, Salima, Dowa, Lilongwe rural and urban, Balaka, Machinga, Mangochi, Zomba, Mulanje, Phalombe, Chikwawa, Nsanje
- **Linkages:** Nutrition activities use the SUN implementation framework that promotes multi-sectoral collaboration at all levels and with all GOM ministries, particularly MOH, MOAFS, MOLG, and MGC&SW.

Self Help Africa (SHA)

- **Thematic Focus:** agriculture livelihoods, enterprise development, climate change
- **Programs/Services:** SHA offers training, extension, and other technical services. Its portfolio is primarily agricultural, although they have recently hired a nutrition specialist to help them with integrating nutrition into their agricultural activities. Current activities include the following projects, among others: *Farm Enterprise Development for Food and Economic Security* (FEDFES), activities under the Mtukula Agricultural Enterprise Fund, and *Developing Innovative Solutions with Communities to Overcome Vulnerability* (DISCOVER). In FEDFES, SHA trains AEDOs and

²³ Founded in 1973, initially called John Hopkins Program for International Education on Gynecology and Obstetrics, now referred to as Jhpiego.

their own field staff who train lead farmers; the lead farmers subsequently train other farmers in, among others, certified seed production and marketing. SHA supports the development of farmer groups at several levels: five to ten farmer clubs form a producer association with five producer associations forming a cooperative. As this system develops, SHA links groups to private sector processors and/or markets depending on the crop produced. FEDFES integrates nutrition primarily via providing tailored Nut Ed messages related to crops produced through the project. SHA emphasizes building farmer capacity to negotiate with buyers and viewing farming as a business. Under the Mtukula activity, women smallholders are producing broiler chickens, amaranth, and mangos for further processing and marketing but also to improve their families' dietary diversity. DISCOVER focuses on climate change, preparing local government to respond to climate variability and promoting crop diversification and livestock production with smallholders. As well, SHA is working on scaling-up the PlantWise Initiative with the MOAFS whereby "Plant Doctors", located in plant clinics around the country, diagnose diseased plants and assist farmers to address disease-related problems and prevent crop losses. Previous work in the seed sector includes developing a seed regulation framework.

- **Capacity:** SHA has been working in sub-Saharan Africa for over 30 years and currently operates in nine African countries. Its projects are implemented by a mix of SHA FLWs and AEDOs. One of the reasons given for hiring SHA FLW is to complement the work of AEDOs as their numbers and reach is limited.
- **District Coverage:** Lilongwe, Chitipa, Balaka, Salima, Dowa, Karonga
- **Linkages:** SHA has developed GOM linkages primarily with DAES and the Ministry of Industry and Trade. The latter assesses farmer groups for certification as cooperatives or associations. SHA is experienced in working with the private sector through its activities of linking farmers to processors and market traders/buyers.

World Vision (WV)

- **Thematic Focus:** Child-centered adopting a holistic approach to child welfare including agriculture, health, nutrition, education, WASH, and making children feel safe and protected.
- **Programs/Services:** WV supported health and nutrition projects manage kitchen programs where moderately malnourished children are treated using the PD/Hearth approach. Child health days, CBCC, and dissemination of health and nutrition information through different channels are also supported by WV. WV adopts a lead farmer approach in food security projects, which focus on dietary diversification through fruit tree production and small livestock development. VSL are included in the WV portfolio of projects and men are explicitly encouraged to join groups. For most agriculture and integrated Ag-Nut activities, WV trains AEDOs and HSAs to implement and provides support such as materials, transportation, lunch, and exchange visits with other GOM staff and farmers from different areas. There is a quarterly meeting of GOM district-level technical departments (e.g. from agriculture, health, forestry, social welfare, education), convened by the MOAFS, in which WV participates and supports with snacks, etc.

- **Capacity:** An international NGO, WV was established in 1982. Its experience in Malawi includes its partnership on the WALA project and its precursor. WV relies on AEDOs to implement its projects and supports them in various ways to do so.
- **District Coverage:** WV works in 26 of 28 districts in Malawi. However, the above activities may not be implemented in all of these districts.
- **Linkages:** WV participates in district-level GOM meetings and in meetings with farmers and other NGOs convened by NGOs. Linkages have been developed with many of the ministries operating at the community-level, particularly MOAFS and MOH.

D. SUPPORT SYSTEMS

Technical agencies, research organizations, and educational institutions have important roles to play in supporting Ag Ext, Nut Ed, and integrated Ag-Nut programs, providers, and services. The capacity of the technical and research agencies was not assessed, rather a general statement of their related experience given. The capacity of the educational institutions was narrowly assessed specifically in terms of their institutional capacity to provide training and education in the focus areas of this assessment.

Food and Agriculture Organization (FAO)

- **Thematic Focus:** policy/programs in agriculture, forestry, fisheries
- **Programs/Services:** FAO aims to defeat hunger and supports Malawi in transition to improve agriculture, forestry, and fisheries practices as well as ensure good nutrition for all. Relative to this assessment, FAO is implementing two integrated Ag-Nut projects. One works through CGs to diversify diets by raising small livestock and promoting cereals other than maize such as millet. Groups are supported by an agricultural agent, FAO supported or in cases an AEDO, rather than a health agent. In the *Junior Farmer Field and Life Skills (JFFLS)* project in Mzimba and Kasungu, school youth (12-15+) are supported to establish gardens near their school. The six-hour per week, after-school training for students is integrated in that production and processing practices and nutrition education are essentially taught together. As well, FAO is initially supporting MOAFS, specifically DAES Food & Nutrition Branch, to develop MOAFS agriculture and nutrition strategy.
- **Capacity:** FAO developed the JFFLS approach and FAO/Malawi has experience implementing this and other integrated Ag-Nut projects.
- **District Coverage:** JFFLS in Mzimba and Kasungu; policy activities pertinent across Malawi.
- **Linkages:** FAO linkages are largely with the MOAFS as well as with other agriculture development partners.

International Food Policy Research Institution (IFPRI)

- **Thematic Focus:** food policy research and analysis
- **Programs/Services:** Founded in 1975, IFPRI is one of 15 research centers of the Consultative Group on International Agricultural Research (CGIAR). Its mission is to provide research-based policy solutions that sustainably reduce poverty and end hunger and malnutrition. IFPRI/Malawi assisted the MOAFS in the development of the National Agricultural Policy (NAP, as cited in

GOM, 2011) and has plans to conduct a major review of Ag Ext in Malawi. It currently is not involved with specific activities related to nutrition.

- **Capacity:** IFPRI's focus is on research and not on direct project implementation. It is a premier global research institution.
- **District Coverage:** Across Malawi.
- **Linkages:** IFPRI linkages are largely with the MOAFS as well as with other agriculture development partners.

International Potato Center (CIP)

- **Thematic Focus:** potatoes, sweet potatoes, Andean root and tuber crops
- **Programs/Services:** CIP, established in 1971, is one of the CGIAR research centers. Its mission is to achieve food security, well-being, and gender equity for poor people in root and tuber farming and food systems in the developing world. The *Scaling up Orange-fleshed Sweet potato through Agriculture and Nutrition* (SUSTAIN) is a five-year Africa regional project designed to scale-up pro-vitamin A orange-fleshed Sweet potato (OFSP) distribution and consumption in order to positively impact nutrition security particularly of women and young children. Biofortified vitamin A rich OFSP has been shown to reduce vitamin A deficiency. Learning from and building on an earlier and similar project in Malawi, SUSTAIN is operating in Malawi and is interested in new ways of doing business both in terms of Nut Ed and Ag Ext. For the latter, SUSTAIN expects to work pluralistically with both NGO and DAES extension staff to provide SUSTAIN participant farmers with extension advice and services. SUSTAIN will utilize DAES extension as part of their overall program strategy and will provide them with training and support.
- **Capacity:** CIP is the premier potato institution in the world and has experience implementing related projects in Malawi.
- **District Coverage:** Targeting the top ten EPAs where sweet potatoes are produced. Further details unavailable.
- **Linkages:** CIP linkages in Malawi build on previous project linkages, which include GOM and the private sector. The SUSTAIN projects expects to develop linkages with Universal Industry for processing.

Lilongwe University of Agriculture and Natural Resources (LUANAR) Bunda College

- **Thematic Focus:** LUANAR has five faculties: Natural Resources, Agriculture, Veterinary, Food and Human Sciences, and Development Studies. It also has a research arm, the Centre for Agriculture Research and Development.
- **Programs/Services:** Bunda College of Agriculture structurally changed in 2012 from being part of the University of Malawi to become LUANAR. Plans, yet to be realized, are that other institutions will join the LUANAR structure.
 - The Faculty of Development has four departments: Extension, Agriculture and Applied Economics, Agribusiness, and Agriculture Education and Development Communications. Degrees in Extension are offered at the B.Sc., M.Sc., and Ph.D. levels. Enrollments have been increasing, particularly for the B.Sc. degree program. Demand is also high for

graduates who typically join DAES or NGOs following graduation. The Extension degree is largely focused on agriculture although students take at least one course in Food and Human Sciences and two gender and HIV/AIDS or development courses. Currently, there is not a course that attempts to specifically integrated agriculture and nutrition. ICT-related study is under the Communications faculty, which hopes to establish platforms for e-learning and otherwise strengthen ICT use. The Faculty responds to outside training requests for short-courses and has delivered courses on the lead farmer approach among others.

- A relative new faculty, the Faculty of Food and Human Sciences has three departments: Food Science and Technology, Human Nutrition and Health, and Human Ecology. Post-graduate diplomas, B.Sc. and M.Sc. are offered in these areas. There is apparently a gap between graduates and potential employers as some graduates are working as teachers while employers advise they are unable to find qualified nutritionists for their programs. Whether programs integrated Ag-Nut is not clear although there is reportedly nutrition extension education, which covers topics such as home gardens and food processing. Gender and HIV/AIDS is addressed in household food security courses and nutrition in the life cycle includes the role of men. The Faculty plays a key role in SUN, including conducting research and offering short-term training. Across-sector staff from the various ministries involved at the district and national level and NGO representatives are trained at LUANAR by faculty members on SUN implementation. The three-week course, which includes a hands-on practicum, draws largely on SUN NECS material. The participatory approach provides opportunities for participants to discuss nutrition-sensitive examples related to SUN implementation. Participants receive a certificate based on attendance. Graduates are expected to develop joint district plans and support the nexus of nutrition activity at the district level, the District Coordinating Committee on Nutrition. This committee is part of local government and the SUN structure. To date, three to six people per district have been trained.
- **Capacity:** The number of faculty in the Faculty of Development has more than doubled over the past several years. They are now in a stronger position to respond to the demand for their long-term training programs. However, while they are engaged in developing and delivering short-courses for the MOAFS, donors, and others, their capacity to do so is limited by the number of staff available. NGOs are requesting assistance in the design of programs, which the Faculty is unable to respond to at this time due to staff limitations. The Faculty of Food and Human Sciences is responding to demand for SUN training and has the capacity to increase the number of SUN trainings delivered—with the caveat that accommodation/teaching space is a limiting factor.
- **District Coverage:** Across Malawi.
- **Linkages:** LUANAR links with ministries in the SUN structure, primarily the MOAFS, with donors and civil society, and has international linkages with universities and other research and development institutions.

National Resources College (NRC)

- **Thematic Focus:** Offers diplomas programs in seven programs: Agriculture; food, nutrition, and livelihood security; environmental management, land administration, horticulture, animal health and production, and irrigation technology.
- **Programs/Services:** NRC has been operating as a semi-autonomous institution since 2001 and is likely to join LUANAR in the near future. This will reportedly have minimal effect on course offerings in the near term. NRC has changed over the years from a GOM supported to a semi-autonomous institution. The cost implications are widely discussed in Malawi as students now pay fees. It is said that NRC is now only for the wealthy. Investigating NRC fees shows their fees are very similar to those paid by self-sponsored LUANAR students who are not under a government scholarship program. NRC offers a B.Sc. in Food Technology; a special 18-month program to upgrade GOM DAES staff, primarily AEDOs, from certificate to diploma level; and short-courses for various clients on demand. As noted above, it offers diploma degrees in seven areas, among them the *Diploma in Agriculture and Natural Resources Management* and the *Diploma in Food, Nutrition and Livelihood Security*. These are two and one-half year, five-semester programs that include a total of up to 14 weeks of attachment where knowledge and skills are put into practice. The programs share about two-thirds of courses, while each has its substantive focus—agriculture or nutrition—in the remaining one-third of courses.
 - The agriculture diploma is geared toward training extension agents, primarily for work with GOM, but also with the private and civil society sectors. The current qualification for AEDOs is a Diploma. The agriculture diploma program covers basic studies, crop and livestock production, irrigation, rural development, farm and environment management, and food and nutrition. Extension methodologies are addressed under rural development. Integration of Nut Ed is via the one course in Community Nutrition in the last year. Additionally, one of the four Special Projects must be nutrition-related. Gender & HIV/AIDS are offered together in two courses, one as part of basic studies and the other as part of rural development.
 - The food and nutrition diploma covers: basic studies; food, nutrition, and livelihoods; crop and livestock production; irrigation technology, farm management, and extension and rural sociology. Based on a list of specific courses, this is a well-integrated Ag-Nut program.²⁴

NRC does not track its graduates. Nonetheless, the sense is the large majority of graduates obtain employment. The food and nutrition graduates apparently are not entering DAES service but rather the GOM health sector and more lucrative positions in the private and civil society sectors.

- **Capacity:** NRC is experienced in providing Ag Ext, Nut Ed, and integrated Ag-Nut training and education. They report having the capacity to meet the demand for short-term training but

²⁴ See www.nrc.mw/wp-content/uploads/2013/07/brochure%20nutrition.pdf

need to expand in order to keep-up with demand for long-term training.²⁵ Their ICT capacity, in terms of facility infrastructure and substantive training, is very limited.

- **District Coverage:** Across Malawi.
- **Linkages:** NRC links primarily with GOM, (e.g., the MOAFS appoints its board), and with the private sector. Both are relied on for curriculum input to match course offerings with demands and needs of these sectors and for providing opportunities for attachments, as are NGOs.

V. POLICY

Although some would benefit from review and revision, Malawi is not lacking in policies and policy-related documents to guide the agricultural and nutrition sectors. The overwhelming challenge is the implementation of these policies and related strategies and approaches given existing human and financial resources and capacity. The table below highlights policies and policy-related documents relevant to the sectors. Several of these are mentioned earlier in this report.

Table 1. Policies and related documents relevant to agriculture and nutrition.

Policy	Description
Malawi Growth and Development Strategy II (MGDS II) 2011-2016	GOM overarching medium- term strategy. Aims to create wealth and reduce poverty through economic growth and infrastructure development.
National Agricultural Policy (NAP) 2011 -	Aim is to promote agricultural productivity and sustainable management of land resources to achieve national food security, increased incomes, and ensure sustainable socio-economic growth and development. The policy has yet to be ratified and is essentially superseded by ASWAP.
Malawi Agricultural Sector Wide Approach (ASWAP) 2011-2015	Priority investment program for the agriculture sector. Focus areas are: food security and risk management, commercializing agriculture, and sustainable agriculture underpinned by strengthening of support services targeting research and extension services and institutional development and capacity building. Crosscutting issues are HIV/AIDS and gender. ASWAP is aligned with CAADP including a commitment to 6% annual agricultural growth and to allocating 10% of national budget to agriculture, the latter, which Malawi has exceeded.
Agricultural Extension in the New Millennium 2000 -	Policy document for the Ag Ext sub-sector. Objectives are to provide a new extension policy orientation (pluralist, demand-driven system) present guiding principles and roles for actors in the sub-sector, and provide a framework for mutual understanding and common vision of Ag Ext in the new millennium.

²⁵ The NRC facility was built for around 680 students. NRC now serves well over twice that number. Last year 1800 sat the entrance exam. NRC was able to accept 700 of them.

Policy	Description
The District Agricultural Extension Services System (DAESS) 2006	Guide for implementing new approach to provision of Ag Ext services at decentralized levels. Objective of the System is to empower farmers to demand high quality services from those that are best able to provide them.
Food Security Policy (FSP) 2006 -	Published in 2006, the goal is to significantly improve food security of the population. The goal implies increasing agricultural productivity as well as diversity and sustainable agricultural growth and development. Effectively superseded by ASWAP.
National Nutrition Policy and Strategic Plan (NNPSP) 2007-2011	Result of removing nutrition from an earlier <i>Food and Nutrition Security Policy</i> in order to elevate nutrition's profile in the national agenda. Focuses on addressing nutrition disorders and deficiencies among the population with emphasis on vulnerable groups and on creating a supportive enabling environment. Currently under review by DNHA along with development of the Nutrition Act regulatory framework.
Nutrition Education and Communication Strategy (NECS) 2011-2016	Main implementation instrument of the SUN Movement in Malawi which Malawi joined in 2011. The goal of the strategy is to effectively support a national effort to reduce the prevalence of stunting among the children less than two years of age to less than 20% over a five-year period (2011-2016).
Agriculture Sector Gender, HIV and AIDS Strategy 2012-2017	Guides implementation of gender, HIV and AIDS responsive programs and projects in the agriculture sector with the purpose of promoting gender equality, preventing the spread of HIV and mitigating the impacts of AIDS in order to increase agricultural productivity in line with ASWAP priorities.

Note: All policies and documents are authored by GOM or GOM with others and are referenced in Appendix E.

As the ASWAP is the priority investment program for the agricultural sector, it is of particular importance to the themes of this assessment. There is discussion around the adequacy of nutrition coverage in the ASWAP. The document (2011) itself can be confusing in that its Table of Contents under section 2.3 *Justification for ASWP Focus Areas, Improved Food Security and Nutrition* is listed, while under section 4.1 *Focus Areas and Key Support Services*, Focus Area 1 is listed as Food Security and Risk Management. Nonetheless, under Focus Area 1, promoting diversification of food production for improved nutrition at household and national levels is one of the components. Details of actions to be implemented under this component include production diversification and dietary diversification (GOM, 2012, pp. 33-37). A wide range of actions—promoting legume and vegetable seed for market distribution, conducting staff and farmer training on food budgeting, introducing dairy goat breeds, promoting the Malawi six food groups, conducting demonstrations on processing, and utilization of foods in a diversified diet—are to be implemented via AWSAP.

In addition to the above, other policy-related issues that impact agriculture, nutrition, and particularly gender are land tenure, credit provision, inputs and marketing, prices, and gender roles (Moyo & Mandaloma, 2014). Noteworthy is GeoSAS (2012) review of GOM policies confirming that gender is

mainstreamed in GOM policies although its implementation is lacking. The review confirms that ASWAP has mainstreamed gender issues to reduce gender disparities and strengthen capacity of youth, women, and men to contribute to agricultural productivity. Further gender issues are outlined in ASWAP as they relate to household food and income security as well as research and extension services.

A policy issue related to gender, nutrition, and agriculture centers on who is to promote healthy home life at the household level. MOAFS previously had Farm Home Assistants, akin to home economics agents, to carry out this function and the Ministry of Gender previously had Home Craft Assistants who performed some of these roles. Both ministries are advocating to reintroduce these positions. Worth exploring is one position with joint-appointments in the two ministries. This offers an interesting approach to adding staff to ministries already unable to fill current positions but may have significant administrative constraints.

VI. EFFECTIVENESS OF PROGRAMS

Rigorously examining program effectiveness requires more time than was available to the team. There also was only one related-program evaluation available.²⁶ Therefore, effectiveness was looked at broadly and qualitatively from the perspective of service providers and program beneficiaries. Provider and beneficiary perspectives were obtained through interviews and Focus Group Discussions held in Lilongwe and other two districts, Mchinji, and Balaka.

A. PROVIDER PERSPECTIVES

Results in this section are based on interviews with public and civil society sector service providers. Providers were asked: *From your perspective, how effective do you think your programs are?* No attempt was made to define effectiveness, thus responses are from respondents' perspective and are self-assessments. Overall, responses suggest service providers believe they are providing effective services. However, all also identified various constraints and challenges they face in service provision. These are discussed later in this report. The following is a selection of responses, written more or less in respondents' own words.

1. Public Sector Service Providers

These responses are from DAES staff at the district or EPA-level.

- The DAESS system is very effective as it allows us to have good contact with colleagues. An example is how everyone was mobilized to come to this meeting.
- Model Villages are highly successful. They are the most effective delivery models.

²⁶ Although several NGOs had plans to carry-out mid-term or final evaluations, the team had access to one mid-term WALA evaluation (Kabir, McNulty, & DeVries, 2012).

- Some relationships are very good where the NGO comes in and works with us right from the beginning in developing programs and implementation. Other relationships are not so good where an NGO might come in and have little or no interaction with us.
- Most NGO's have good funding and use us in their implementation plans, however sometimes resources are not shared adequately.
- Lead farmers are also key to an extremely effective program. (Question from the interviewer: What are the incentives to be a lead farmer?) They get bicycles, advanced training, small incentives to go on tours, inputs for demonstrations.

These responses are from Area Stakeholder Panels (ASP). They appear to see themselves as both providers of services to farmers and as beneficiaries of the DAES system. Their responses to their effectiveness as providers of services include:

- Our work is important because we take on part of the work of the AEDOs. Our performance would improve if there were further training.
- Very important because our role is to identify the real needs in the area, without us it would be top down.

2. Civil Society Sector Service Providers

- Programs are done well because a lot of time was invested in preparing everyone for the project.
- Knowledge uptake of health and nutrition is high.
- Integration is a slow process, but we are getting there...the way educational and job aid materials are developed, they promote integration.
- Integration is effective in that the farmer or household is dealt with in totality and not in piece meal. It saves time too.
- Effective because we have seen some changes like reduction in wasting, underweight, and stunting and we have observed hygiene and sanitation changes in the community.
- We try to integrate but it isn't easy.
- Previous studies show our approach is effective but we will wait for results of national surveys.
- Effective and well integrated; soybeans grown for nutrition impact.
- Effective because there are changes like now people speak up and take action.

B. BENEFICIARY PERSPECTIVES

Results in this section are based on Focus Group Interviews held with ASPs in the three districts and with farmers and farm family members in two of the three districts (Lilongwe and Mchinji).²⁷ As noted above, ASPs appear to view themselves as both providers of services to farmers and as beneficiaries of

²⁷In the ASP groups, there were 10, 14, and 13 participants. For the farmer groups, there were 9 in one group and a fluctuating participation of 40-60 in the other.

DAES and NGO program activities. Responses presented below for ASPs suggest although there is variation among districts there is less training being delivered in nutrition than in agriculture and beneficiaries would appreciate more training in both. This raises a confounding issue of the role of ASPs. As reviewed in above sections of this report, according to the DAES System, ASPs are one link in a system designed to articulate farmer demands from the village up through the proper channels to result in provision of response to demands articulated. ASPs seem aware of this role. However, it appears they also believe they should be trained in technical areas both for their advantage and in order to extend this information to farmers in their community. Farmers and farm family members' responses suggest programs are effective in developing their skills and knowledge. They were able to identify specific agriculture and nutrition practices that they learned. Some respondents said they benefitted because their production and income increased and because they were able to access loans through their VSL group.

1. Area Stakeholder Panels (ASP)

The membership of ASPs interviewed included farmers, LFs, group village headmen, village headmen, and village health volunteers. Responses are more or less in respondents' own words and are organized by district. These responses are indicative of effectiveness of training provision and learning in general and not attributed to any one specific program.

Lilongwe Rural: Chairs of VDC and ADC joined in the discussion with the ASP.

- Need to be better informed of nutrition issues, so far no training in nutrition.
- There was some training several years ago on our ADC/VDC role but not enough to give us a good picture of what to do and how.
- Some of us received a one-day training in group dynamics and extension approaches by the AEDC but none other than that.
- We don't learn about nutrition in our ASP work but in cases from the AEDO about agriculture.

Mchinji

- We received training from AEDOs and NGOs on leadership then updates on technologies like CA, one seed maize planting, composting, and processing of groundnuts and soya.
- Not enough nutrition knowledge – a bit during processing of soya, learnt about six food groups.
- Members have learned new agriculture technologies that they are able to practice in their homes.
- Farmers get timely support that was not there before.
- Members have gained skills and knowledge they did not have before.

Balaka: Many of the members of the ASP also were members of other groups such as irrigation, manure, and honeybee clubs. Balaka responses may be influenced by benefits emanating from these groups rather than from ASP membership.

- Received training on composting, honeybees, irrigation, CA, forestry, pit planting.
- From the Ministry, also receive when to plant, manure application, proper plant propagation, weeding harvesting, and early maturing varieties – some through SMS.
- AEDO comes when he is able because the area he has to cover is too much.
- From NGO, learned about six food groups, recipes to combine foods, and locally available foods.
- We benefit because we learn new technologies and this helps us to become self-reliant.

2. Farmers and Farm Family Members

Focus Group Interviews were held with two groups of participants in various Ag Ext, Nut Ed, and/or integrated Ag-Nut projects. These groups consisted of members of VSL groups, LF groups, and farmer associations as well as LFs and other farmers. For these groups, effectiveness is considered as beneficiary perception of what they learned and how they benefitted as well as comments on weaknesses of activities. These are not attributed to any one particular project but with respondents' engagement in general with Ag Ext, Nut Ed, and/or integrated Ag-Nut activities.

Participants were able to list particular practices they indicated they had learned either from AEDO's or NGO extension workers such as: land preparation, early planting, ridge spacing and plant spacing, purchase of seed before the rains, 1 seed maize planting, composting, and ways to identify whether the crops is mature for harvesting. For nutrition they identified practices they learned from HSAs working with NGO agents such as exclusive breastfeeding, six food groups, soya processing into milk, and recipes for soy. They also said they knew how to prepare various healthy food recipes such as sweet potato porridge, banana bulb as a side dish, and mixing cassava and cowpeas. They say they have benefited because of early planting which results in higher yields and higher incomes and from being able to access loans through their VSL group.

Their comments related to weaknesses in effectiveness included: sometimes seed comes late, we receive messages once with no follow-up, trainings take place infrequently, and there are too few nutrition promoters.

VII. FINANCIAL SUPPORT TO PROGRAMS

A. GOVERNMENT

According to CISANET, for the past three fiscal years, the FISP program has been allocated an average of 58% of the total budget of MOAFS (2014).²⁸ This allocation represents approximately 82% of the recurrent budget of MOAFS. The recurrent budget typically ranges from about 63-78% of the total budget with the remainder being development funds. The total allocated to FISP is attributed to fertilizer subsidies and the rest mainly to maize and legume seeds. At the same time agricultural extension has only received less than 3% of the recurrent budget (CISANET, 2014). The FISP program is by far the dominant program funded by MOAFS. This is reportedly at the expense of other MOAFS budget areas such as extension, livestock and crop production management (CISANET (2014), although this assertion is questioned by others (Mazunda, 2013)²⁹.

B. DONOR

In the past there has been an overall lack of coordination of donor support for initiatives under the mandate of the GOM. For funds channeled to the public sector, most donor agencies followed their own program agenda and targeted specific programs in the appropriate Ministry. Recently, a group of seven donors have come together to form the Multi Donor Trust Fund (MDTF). Members of the MDTF include USAID, Department of International Development, European Union, Royal Norwegian Embassy, Flanders International Cooperation Agency (FICA), World Bank, and Irish Aid. Some member institutions will be contributing approximately 50% or more of their donor portfolio to the MDTF. Of the remaining donor funds that are not being committed to the MDTF, donors are promoting:

- sustainable/conservation agriculture,
- the use of ICTs,
- livelihoods,
- resiliency, and
- nutrition-based activities.

The MDTF will have an advisory committee made up of one member from each of the seven donor agencies. The role of this committee is to consult with GOM officials on proposed projects and come to a consensus regarding which activities to support under ASWAP.

There also exists a larger umbrella group, the Donor Committee for Agriculture and Food Security (DCAFS) whose goal is to coordinate and harmonize efforts. The seven MDTF members plus World Food Program, FAO, Japan International Cooperation Agency, and African Development Bank make up the

²⁸ The ASWAP states that more than 50% of the current budget of the MOAFS is allocated to FISP (2014).

²⁹ Mazunda, 2013, refers to an agricultural public expenditure review which suggests the introduction of FISP was not to the detriment of other components of the MOAFS (World Bank, 2013b).

membership of DCAFS. DCAFS meets once a month. The DCAFS does not currently have a specific focus on nutrition related activities but their goal is to make nutrition a more integral part of the program planning process going forward. Various donors participate in DCAFS and in the Donor Committee on Nutrition (DONUT). This is evidence of the increasing interest in promoting improved nutrition practices. Several donors plan to consider agriculture through a health and nutrition lens in the upcoming development of overall strategies.

Of particular note to this assessment, FICA is highly focused on supporting agricultural extension activities in the country with emphasis on helping to support DAES. In recent years, FICA funded activities include the support of agricultural extension training services specifically at Bunda College and overall support for the lead farmer concept. Another major effort, which is just closing out in 2014 is financial support of printers, mobile phones, cameras at the district level and renovation of the print shop and purchase of a large-scale plotter at DAES headquarters. FICA plans to earmark future contributions to the MDTF for use by DAES.

Irish Aid supports general nutrition programming at Bunda College and through UNICEF nutrition-related activities. More broadly, Irish Aid supports agricultural programming with various partners that have the link to nutrition of improving overall food security. These include:

- International Crops Research Institute for the Semi-Arid Tropics, seed sector development with the goal of producing breeder seed for legumes and rice in Malawi
- World Agroforestry Centre, agroforestry and conservation agriculture
- NASFAM, conservation agriculture
- IFPRI, policy research focusing on budget issues and monitoring ASWAP
- CISANET, monitoring of FISP and budget monitoring of the MOAFS
- African Institute for Corporate Citizenship, policy advocacy and to help more effectively organize the legume sector value chain

Through the Global Health Program, USAID supports nutrition through community-based interventions focused on identification, treatment, referral and support, as well as on food security and livelihoods initiatives.³⁰ Via its Agriculture and Food Security programming, agriculture and nutrition are closely allied in the *Integrating Nutrition into Value Chains* (INVC) project, which among other objectives, aims to improve the dairy and legume value chains. This project is earlier discussed in this report. As well, USAID works with GOM to improve nutrition program management and M&E.

World Bank Group support for Malawi centers around three themes. These are: Promoting Sustainable, Diversified and Inclusive Growth, Enhancing Human Capital and Reducing Vulnerabilities, and Mainstreaming Governance for Enhanced Development Effectiveness.³¹

³⁰ See www.usaid.gov/malawi/global-health for further information.

³¹ Details are not available as the team was unable to interview the WB.

Much of the support for nutrition-based activities is focused on the national program SUN, funded by USAID, UNICEF, Irish Aid, WB and others. Among areas supported are development of legumes (beans, pigeon peas, groundnuts) and potatoes. These are supported to promote dietary diversity, as an alternative to maize, and to enhance farm income. Additional integrated Ag-Nut initiatives supported by donors include promoting both bio-fortification and artificial fortification of foodstuffs, working with Bunda College (LUANAR) to support nutrition from an agricultural standpoint, and supporting Chancellor College with a parallel emphasis of looking at nutrition from a health standpoint.

Overall, the focus of donor funding is much the same as it was in 2012 (Simpson & Heinrich). Then and now the main financial contributors to government extension services are GOM, FICA, and Irish Aid with USAID and other bi and multilateral donors contributing to private sector and NGO-based extension and advisory services.

VIII. INFORMATION AND COMMUNICATION TECHNOLOGY

The scaling up of ICT's is being embraced by all sectors including public, private and civil society. DAES has a fairly large ICT unit of well-trained staff who are working in all areas of ICT including radio, short message service (SMS) and printed materials. The staff of DAES provides much of the technical information for the farm radio programming that is generally disseminated by partners using public radio stations. The DAES print shop has recently undergone a major upgrade including the addition of higher quality printers using funds donated by FICA. The more widespread use of smartphones as an ICT tool appears to be at least five years away in Malawi due to very limited smart phone and WiFi connectivity in much of the country, particularly in rural areas. It is also worth noting that most of the extension people interviewed spoke very highly of the effectiveness of the "yellow van" which has been around for a number of years. The yellow van is very effective at focusing attention on the intervention being implemented in the village but comes at a relatively high cost in terms of infrastructure, fuel and maintenance. Also, the ability to have universal reach within the country is not there. Perhaps some of the features that made the yellow van effective can be captured and replicated without the presence of the vehicle itself.

A. RADIO

There are at least 30 radio stations in Malawi with a wide range of reach. In general, infrastructure in rural areas is weak resulting in limited range for any station. With about 64% of Malawians having ownership of radios, the potential for disseminating information is quite high. Looking at all of the radio stations in Malawi, approximately 75% have some level of farm programming. In most households, however, the man controls the radio, which greatly limits access to agricultural production or nutrition messages to the women in the family. To help rectify this situation, there is a movement gaining traction in Malawi to promote equal access to ICT resources among genders. At a MFAAS meeting in early April 2014, this issue was a priority and members discussed new approaches that might be used to help in more equally gendering ICT.

One example of the use of radio to disseminate agricultural production and nutrition education messages is NASFAM. NASFAM uses one national station and one private radio station for their work,

which covers 20 of the 28 districts in the country. Staff members at the main office provide onsite training for field officers who in turn work hand in hand with AEDO's to develop appropriate radio programming for farmers. Field officers are trained on issues of gender and receive financial management training as well.

In general, the future for farm radio in Malawi is very promising both as a standalone platform as well as a complimentary platform to the rapidly growing SMS/cell phone technology. Work is ongoing to sync radio and SMS through DAES' radio programming and others by sending out reminders to listen to agricultural programs and summaries afterwards. Through ESOKO, as well as other platforms, ICT actors can reach out to smallholders using SMS.

B. CELLPHONE BASED

1. SMS

The most rapidly growing ICT in Malawi, as well as all of Africa, is the use of SMS through cell phones. The level of connectivity required for cell phone and SMS messages has a much greater geographical reach in Malawi than does the higher level required for more advanced use by smart phones. Partners in Malawi reference successful models in India that have been scaled up. In India, companies have made cell phones and airtime very affordable which is one of the main reasons for the growth of this technology there. The cell phone industry appears to be moving in that direction in Malawi, which will continue to fuel the growth of SMS-based ICT.

The primary platform in place for SMS in Malawi is ESOKO. It is a platform that can be used to send/collect information customized according to users' needs. ESOKO with "E" standing for electronic and SOKO for market started in 2011 in order to equip farmers with a tool that provides them with current market information. It can be used in health, agriculture, education, and is readily adaptable to cut across sectors. Through the local ESOKO company, UMODZI Consulting, ESOKO subscriptions have been sold to at least eight organizations with varying program focus including but not limited to agriculture extension, nutrition and health information, inventory tracking, market information and early warning messages. USAID has worked with several organizations including UMODZI Consulting and ESOKO Networks through markets linkages initiative, which has helped farmers to access information on how and where they can sell their farm products at competitive prices.

i. Agribusiness Systems International (ASI)

Various donors have provided funding to institutionalize SMS messages through ESOKO. One component has been run through ASI to provide technical assistance to DAES in delivering SMS based information. This program, TEXTS (Technology for Extension to Smallholders) is using ESOKO to send out SMS extension information on four staple crops and four livestock value chains. TEXTS, an 18-month project funded by FICA, was designed with the goal of improving good agricultural practices through SMS extension. There are currently over 18,000 lead farmers on the system and the entire Government extension workforce of 2,100 extension officers is also registered. DAES plans to continue this service independently following the close of this project in July 2014.

Access to ICT equipment, and in the case of SMS technology, access to cell phones is a challenge. In 2011, 14% of the smallholders in the program managed by ASI had cellphones. Currently, about 29% have cellphones, which is a significant increase. Control of the cellphones is another challenge that is evidenced by gender disparity amongst users. Women, who make up 70% of the agricultural workforce, should be the key recipients and users of most of these SMS extension messages. However, often they do not get the messages since they don't own or control radios/cellphones in the household. Unfortunately, it is clear, based on our interviews, that some men do not share information with spouses very effectively.

Another challenge is the widespread habit of selling cellphones with Subscriber Identity Module (SIM) cards in lean seasons to generate income. This practice cuts off registered users from getting information, as the systems know their number. When the phone with the SIM is sold the former owner is then cut off from receiving additional messages from the information source unless they register their new number when one is acquired.

ii. Smallholder Farmers Fertilizer Revolving Fund (SFFRFM)

Established in 1988, the SFFRFM plays a huge role in supplying, handling and distribution of fertilizer and seeds in the FISP. The SFFRFM is using ESOKO to track the distribution and stock of fertilizer from three regional warehouses to all outlets in country. The objective is to be able to track fertilizer deliveries in a timely manner. Participants respond by SMS, which allows program officials to get the information within a few hours instead of weeks as it took previously.

iii. Market Linkages Initiative Bridging Activity (MLIBA)

The USAID-funded MLI BA was an eighteen-month \$1.1 million project which supported structured and transparent commodity trading systems in Malawi. MLI engaged ESOKO to advise and train the program on how to setup a network of market agents and deliver market prices to smallholders nationally. ESOKO provided data enumeration methodology, platform training, as well as advised the program how to transition the program to the private sector for longer-term sustainability before the project closed in 2013. Currently 29 markets are covered, with prices of eight key crops and over 26,000 registered smallholders.

iv. Malawi Dairy Development Alliance (MDDA)

Through the MDDA, implemented by Land O'Lakes International Development, some dairy farmers in northern and central Malawi gained access to a new approach to acquiring management skills without the need for travel by using their mobile phones and radios. MDDA is using ESOKO messages to complement traditional agricultural extension outreaches. In conjunction with radio broadcasts, this approach reinforces outreach efforts through farmers' mobile phones. Through its partnership with ESOKO, MDDA sends out text messages to farmers advising them of the time and topic of the next radio broadcast, and follows up after the broadcast with a summary of the key messages that were discussed on the show. This unique combination of radio and SMS messaging helps ensure that farmers who might otherwise miss a show know when it is coming and what will be discussed.

2. MOBILE MONEY AND E-VOUCHERS

A pilot program also exists where FHI360 is implementing an e-voucher program for FISP. Nationally FISP targets 1.5 million beneficiaries but has a number of significant distribution problems in implementation. In the pilot, FHI360 is working with Zambia-based ZOONA (means “It’s real” in local language) through AirTel to implement this approach with 52,000 farmers in six EPA’s. The e-voucher replaces the paper voucher and has been monitored to have a 95% redemption rate. The advantages of the e-voucher over the paper voucher are the greatly enhanced ability to track both the dissemination of the vouchers and the seed and fertilizer distributed when the vouchers are redeemed at an input supply dealership. Problematic areas of the FISP system that are eliminated or significantly reduced include timely tracking of inventory of seed and fertilizer at vendors, assuring that the vouchers do not migrate out of the intended geographic area, voucher cannot be sold or bartered, and seed companies receive more rapid reimbursement for the GOM.

Another innovative use of ICT technology is the use of cell phones in the finance arena. FHI 360 is involved with ICT mainly with the Mobile Money Accelerated Program (MMAP) as finance mechanism. This work involves three main areas including social cash transfer, government employee and civil servant payments and agricultural value chains. Social cash transfer is essentially a mobile platform for distributing payments from the WFP. This platform is also being piloted to distribute salary and pension payments to current and retired government employees including teachers. This is a great advantage especially in more remote areas where access to paper payments and banking is much more limited. This mechanism may have favorable gender implications as well if women are able to access funds directly on cell phones and not required to travel to financial institutions. Typically, men would be the ones traveling to banks and women might lose control over the funds as a result. The other use of MM is through the Hunger Project. This project gives MM micro-loans to farmers and is sustained on the interest charged.

3. SMART PHONES

The USAID-funded LIFT II Program is establishing a Civil Society Network in Balaka that promotes economic strengthening, livelihoods, nutrition education, commodity distribution, and food security services as well as health services. The network is aimed to be locally-owned and managed. CBOs are to provide agricultural extension, nutrition education, and/or other health-related services (NASFAM is a CBO in the network). When a person seeks out services from one of these CBOs in the network, the person will be registered. Based on response to a set of diagnostic questions, the person will be referred to other services provided by the network. The data is entered into an Android smart phone and fed automatically to CommCare (a cloud-based software). All network partners will have access to the data, but because it is sensitive data, the CBO staff permission level is based on their login credentials. This system provides opportunities to add in additional surveys. The data will be pulled monthly by the Lead CBO and sent for analysis to FHI 360 to understand the number of referrals, and the number of people who actualized the referral. The electronic referral system will be launched in May 2014. FHI 360 offers technical assistance and training to the members of this referral network.

This type of technology can be used currently in urban areas where internet connectivity is at a high enough level to allow for the effective use of smart phones.

4. OTHER ICT

Other innovative uses of ICT are ongoing or planned. For example: Self Help Africa is investigating setting-up a call center whereby farmers call-in to the Plant Doctor for specific information; SSDI-Service is using tablets to support its mentoring activities; and CRS is involved with E-learning courses, Digital Green (a video and people-based knowledge/extension system); and Farmbook (a field-based business application that helps farmers to plan and evaluate their productivity and profitability).

IX. GENDER-RESPONSIVENESS

Mainstreaming gender in Ag Ext, Nut Ed, and integrated Ag-Nut program designs is understood with those we interviewed stating that overall gender is incorporated, integrated, or a crosscutting issue in their programming. However, the review of related literature and interviews illustrates different levels of gender responsiveness. This section looks at gender-responsiveness in Ag Ext, Nut Ed, and integrated Ag-Nut programs with particular focus on women's participation, nutrition specific messaging, monitoring and evaluation, and coordination.

A. WOMEN'S PARTICIPATION IN DELIVERING EXTENSION SERVICES

In general, improving participation of women in delivering Ag Ext, Nut Ed, and integrated Ag-Nut is a common challenge that the government, private sector, and implementing partners face. In delivering Ag Ext, most agents are males who then tend to work with male farmers (Moyo & Mandaloma, 2014). Those who promote nutrition are also predominately male as their original responsibilities focus on sanitation, personal hygiene, latrines, etc. In regards to the CDAs who address gender issues at the community level, there are more female CDAs than male CDAs in urban areas and more male CDAs than female CDAs in rural areas.

The private sector and NGOs recognize the imbalance of male and female Ag Ext agents or other agriculture service delivery agents such as the lead farmer. INVC stated that the "female ratio of lead farmers in their implementing partners is quite good with 24% of NASFAM lead farmers being female, 38% of CADECOM, 37% of FUM, 32% of Malawi milk producer, and 36% of Care Group promoters (36%)." Several other programs are now targeting women as lead farmers or NGO field agents.

Some of the key constraints derived from the interviews in recruiting and sustaining female Ag Ext providers is education level. For recruiting, it is often found that men have higher education levels than women and thus is able to meet the higher educational requirements for job placement. Females are also constrained by long distances to travel and family obligations. In attracting and retaining male and female agents in both Ag Ext and Nut Ed, government agencies, private sector, and NGOs are attempting to address some of these issues. Some agencies are providing gender-appropriate bicycles or motorbikes to reduce the energy needs as well as minimize time constraints. They are also facilitating

women in earning an appropriate license for driving a motorbike. The issue of family obligations such as childcare still needs to be considered.

Given the low number of female agents (Simpson, Heinrich, & Malindi, 2012; Moyo & Mandaloma, 2014) and the WALA project realized women prefer group approaches. This is aligned with the GOM *extension policy that encourages using a group approach* (GeoSAS, 2012). However, GeoSAS (2012) found that most women are in club/groups where farmers' voices are weak, supply-driven extension service are provided, and activities are food security crop-focused. This is in comparison with cooperatives and associations, which are male dominated but also more demand-driven, cash-crop focused, and require the ability to purchase inputs and pay membership fees (GeoSAS, 2012). Furthermore, one program found greater participation of women than men because it focused on small-scale activities, but as programs moved to more market-based activities, male participation increased.

To gather the needs and priorities of men and women, the DAES uses a gender-responsive PRA approach, which has shown signs of empowering women to 'express themselves in front of men and chiefs'. In implementing the PRA, it was learned that in some places the PRAs were carried out in mixed male and female groups, which may limit the capturing of female needs and priorities given the cultural norm of women not voicing their opinions and needs in the presence of men (Moyo & Mandaloma, 2014).

There are mixed reviews on the preference of male and female farmers receiving Ag Ext from men. Moyo and Mandaloma (2014) found in their case studies that women farmers do prefer to work with female extension workers as this provides a conducive environment for women to be able to discuss issues. Interview results indicate differences in acceptance of male/female extension agents by women farmers. However, a perceived benefit of providing Ag Ext to women is that it is easier to target the household with information through women as their male counterparts will often attend meetings and field visits with their female counterparts. Females are also more likely to share this information with others in the household, while women are often not informed of agriculture extension information delivered directly to men.

B. WOMEN'S PARTICIPATION IN ACCESSING AND USING EXTENSION SERVICES

Given the experience in past programming, efforts are being made by implementing agencies to engage women more directly with extension. There is particular emphasis on improving the use of technology for delivering messages. Gender needs to be considered, particularly in terms of access, as for example, Farm Radio Trust found that men mostly have control of mobile phones and radios. In April 2014, the MAFASS discussed how to have gender-responsive technology. In addition to the particular technology, the project *Technology for Extension to Smallholders* (TEXTS) is supporting DAES to develop gender messages and extend its outreach of extension services through the use of SMS.

In addition to the use of ICT, the private sector and NGOs are incorporating gender social committees or gender promotion models to help strengthen gender in Ag Ext. In the NASFAM association framework, there is a gender and social committee and some programs are proposing Gender Field Officers, who will work with local government committees (Village Development Committees (VDCs) and Area

Development Committees (ADCs)) and youth groups, etc. to identify opportunities to raise issues or promote gender. For example, when village leaders hold a meeting, the Gender Field Officer will ask for time to convey gender messages around issues of nutrition and agriculture (e.g., infant and young child feeding practices [IYCF], adolescent girl messaging, household budgeting, labor constraints, time management, and mobility). Other programs are using village savings and loan groups to empower women and enable them to speak up in mixed-sex meetings.

In addition to field implementation experience, Moyo and Mandaloma (2014) identified several ways for males and females to access and maximize knowledge from Ag Ext.

- Use participatory, all women group approaches to provide an opportunity to share, voice concerns, learn and help each other
- Involve husbands when appropriate for uptake of technologies by women
- Train extension service agents in understanding gender roles, needs of women and men farmers, and methods of communicating with and organizing women.
- Implement gender sensitive policies addressing gender inequalities.
- Increase women's basic education to increase their absorption of technical information
- Focus agricultural policy building capacity to better manage, distribute and market their agricultural produce and not increased yield only
- Gender sensitive policies in areas such as extension services, access to market information, micro finance and land tenure reforms need to be put in place.

C. NUTRITION MESSAGING

Nutrition messages have typically targeted women and more specifically pregnant and lactating women (PLW), but there has been a slight shift in targeting males and others who can influence nutrition within the household. Within DAES, the

The MOH is implementing the "Man to Man" program, which educates nurses not to down play when men come to growth monitoring center.

approach they use for targeting men and women is based on socio-economic differences and gender. For example, given the illiteracy rate there is a deliberate effort to share information through posters, radio programs, and TV. However, the message being delivered in these different modes are gender-blind, as they are not crafted specifically to male or females. Although there has been an effort by the government to expand the gender-blind messages to the whole village, those who attend nutrition-specific meetings are mainly women so men are not hearing these messages through these nutrition-specific approaches.

The Food Fortification Alliance is working with its members to craft nutrition messaging that target the family, men, and education facilities. Within the MOH, IYCF and community management of acute malnutrition (CMAM) programs do encourage male involvement. For example, when a woman comes to the health center for her anti-natal visit, sometimes the father attends so he also receives the nutrition messages given to the mother. The MOH does offer an explicit IYCF counseling program at its health facilities that targets mothers and fathers when the mother is HIV positive. Given staffing capacity, this option is not available for couples that are not HIV-positive.

NGOs are also targeting men with health and nutrition messaging. It was discovered that some of the CGV were male, which is providing a different vibrancy to addressing nutrition as men may influence other men. Furthermore, it has been discovered that engaging with men may identify pregnant women more quickly as a husband is proud that his wife is pregnant and promotes it while a woman is likely to keep it quiet, delaying referrals to nutrition-specific services. DAES found that the uptake of nutritious food by men was improved when the approach provided an opportunity for males to taste it in a prepared meal such as cooking demonstrations.

D. MONITORING AND EVALUATION

Monitoring and evaluation (M&E) policy and program implementation is crucial to understanding who is being targeted and the impact of the policies and programs on males and females. A majority of those interviewed state that data is being gender disaggregated. For example, the MOH is gender-disaggregating data on those boys and girls receiving CMAM, while INVC is collecting gender-disaggregated data on training, registration, sales, and traders. There are other opportunities to collect gender-disaggregated data that is not occurring such as child health days and the MOH Health Information Management System. Donors are also requiring gender-disaggregated data in their reporting processes. Although gender disaggregated data is being collected, more gender-specific indicators are less likely to be collected, but efforts are being made. For example, some programs are monitoring women's participation in household decision-making.

Different approaches are being used to evaluate gender in program implementation. Within the government, ADD and district staff visit the field to review how gender-responsive programming is working and to identify difficulties in delivering services to men and women. NASFAM conducts a bi-annual gender impact assessment while FUM conducts sector reviews to ensure quality participation of female. Implementing NGOs are including gender in their baseline, mid-term and final evaluations of their projects, while Royal Norwegian Embassy is also requiring gender issues to be included in the reporting process.

E. COORDINATION

In general, coordination of gender across the various government structures at different levels is limited. At the national level, there are formal meetings to discuss gender with the expectations that gender messages will trickle down to the districts. However, there is no monitoring on how/whether the gender messages trickle down. In addition to national meetings, there are gender desk officers in every sector to help harmonize messages and concepts. At the district level, there may be quarterly meetings within agriculture to discuss progress, problems, and solutions in regards to AG Ext, Nut Ed, and gender, but not across the different ministries. Closer to the field, in some places the government extension agents (AEDOs, HSAs and CDAs) meet quarterly to report on activities completed or planned, but this is not typically coordinated by the government. This could be an opportunity for more strategic thinking, planning, and coordination across the field level agents on integrating gender into Ag Ext, Nut Ed, and integrated Ag-Nut programming.

At the university-level, there are two undergraduate courses within LUANAR that focus on gender. These are contributing to improved gender integration in agriculture and nutrition extension. There is a general course in Gender & HIV/AIDS and a more specific course on Gender & Development.

X. CHALLENGES AND OPPORTUNITIES

A. CHALLENGES

Although progress has been made, the challenges identified through our stakeholder interviews and discussions are similar to those found in the MEAS scoping mission of the pluralistic extension system in 2012 (Simpson, Heinrich, & Malindi) and in the *Nutrition Capacity Assessment in Malawi* (GOM/FAO 2010). This assessment reviewed Ag Ext and brought in the nutrition component, which was not a part of the earlier extension scoping mission. It is not surprising that many of the same challenges identified within the last several years still exist. Significant changes in policy and programs require significant time to change. Nor is it surprising that there are different, but also common, challenges and opportunities for Ag Ext, Nut Ed, and Integrated Ag-Nut Extension. The majority of this section presents issues that were identified as challenges and opportunities by stakeholders. (Further details of stakeholder input are included in Appendix G.) In cases, to expand or clarify stakeholder input, team observations are also included in this Section. Recommendations to meet challenges follow in Section XI.

1. PERSONNEL AND RELATED SUPPORT ISSUES

DAES is mandated to provide quality agricultural extension services to enhance adoption of improved technologies for all males and females and vulnerable groups in order to improve and sustain agricultural productivity for improved food, nutrition, and income security contributing to socio-economic growth and development. To achieve this mandate requires a large and broad-based staff with a widely-diverse set of skills.

In our interviews, the most over-arching area of personnel-related challenges identified by stakeholders targets AEDOs. This includes issues related to geographic coverage, conditions of service, and overall level of work expectations. In all districts visited, there was a high percentage of vacant positions (typically greater than 50%), inadequate housing, limited and inadequate training, lack of transportation support, and low pay plus lack of work-based incentives. The original ideal ratio for the DAESS was one AEDO for every 500-750 farmers. Now it is often one AEDO expected to cover about 2000-3000 farmers and reportedly, in cases, up to 4,000 farmers.

AEDO capacity is also a challenge. The AEDOs are considered generalist, but are relied on for work across multiple Ag Ext topics, HIV/AIDS, and nutrition, and all these with a gender-sensitive lens. Their available time and capacity shapes the focus of the extension services they provide on the ground. In recent years, the GOM placed an emphasis on upgrading the skill base of AEDO through NRC to diploma-level. While a number have benefitted from this upgrading training, those upgraded indicate better conditions of service are in order because they now have more knowledge, and skills. Current funding

limitations have precluded orientation training for new employees and most in-service training for on-board staff.

Many NGOs have insufficient numbers of front-line workers and thus rely on DAES staff, particularly AEDOs, to implement NGO agriculture and nutrition programs. In some cases AEDOs suggest the additional programming work required of them by NGOs should be encouraged with incentives and in some cases NGOs suggest it should not be their responsibility to subsidize the GOM staff that is in the field to do Ag Ext. This can result in a sort of competitive pull to prioritize activities where more support or incentives may be offered and not necessarily on the highest priority activity of the public system. In addition, AEDOs are responsible for on-the-ground management of the FISP program. This can be very time consuming and challenging, leaving little time to work on other GOM or NGO activities during critical times of the year for extension work.

Another key issue with AEDOs is recruitment and retention. On the recruitment side, there is a consensus that more women AEDOs would be highly desirable as women extensionists are perceived as having a somewhat higher potential for having a positive impact in the field with women stakeholders. The challenges mentioned with housing and transportation are even more constraining when considering scaling up the numbers of women AEDOs. In most cases women extension workers would not be in a position where they could be walking or using a pedal bike to reach stakeholders in rural areas. Distances to travel are very far. Several stakeholders interviewed indicated it is increasingly difficult to recruit younger employees and post them in a remote rural setting as many want to be posted in urban areas where there are more amenities. While this is the case for both male and female AEDOs, this reportedly constrains female recruitment very slightly more.

Concern was also voiced about the number of HSAs. For HSAs, GOM past goal was 1 HSA per 1000 people. Currently the figure is around 1 HSA per 1675 people³². The HSAs are responsible for a large array of diseases and health issues. They are driven by the mandate of their local health facility, leaving little time for nutrition-related activities.

2. PROGRAM CAPACITY

Based on stakeholder feedback, it appears that although the DAESS committee structure is an excellent concept and well thought-out, the current ability to fill the membership of the various committees and then consistently function as a committee has been very problematic. The latter is reportedly due to a lack of funds to convene and support meetings. In this structure, if one part of the link is weak the entire structure suffers accordingly. Of the committees that do exist, there was confusion among the stakeholders as to their role. Some committee members advised that while they had some training

³² Author calculation based on population estimates from the World Bank World Development Indicators. <http://data.worldbank.org/country/malawi>

several years ago, it had been a long time since they received any further training on their roles and responsibilities.

The various committees within the DAESS system are not meeting regularly so as a result are not in a position to “lead” with a strong or unified voice. Due to this, farmer ability to “demand” services, as would be integral to a demand driven pluralistic extension system, is very limited. Both the vehicle for carrying that demand forward is not working properly and farmer capacity to demand is limited.

The quality and quantity of training is quite inadequate for MOAFS staff. On all management levels and in both agriculture and nutrition there is a general outcry for more day and short and long-term training. For AEDOs in particular, the plan is to have bi-monthly training. However, this seldom occurs. DAES has developed training plans but funding was insufficient for implementation. Student numbers at NRC are nearly double their original capacity, which creates additional stress for faculty and students alike. NRC is in the process of joining LUANAR in the near future, which should help in terms of coordinating decisions that affect student numbers and curriculum. NRC has capacity to offer short courses, particularly in agriculture, while LUANAR (Bunda College) capacity for agriculture short-course is constrained. NRC is more constrained in providing long-term training than Bunda, due to facilities issues. LUANAR has capacity to increase the SUN training earlier described. A challenge in ensuring that capacity flows from those trained at LUANAR on SUN is that the community trainer’s manual is not finalized.

For MOH staff, there is a set of standard trainings offered through the Ministry for each new HSA. Within this health curriculum, there are a few nutrition modules, but these modules do not elaborate on agriculture’s role in improving nutrition.

The harmonized SUN messages are not fully trickling down to AEDOs nor to HSAs nor are they adapted to the subject matter context. Integrated Ag-Nut training is of priority if AEDOs and HSAs are to be comfortable engaging in integrated activities.

3. INFRASTRUCTURE AND BUDGET

Budget shortfalls for MOAFS staff are severely impacting programs at various levels. Shortage of funds for transportation, housing maintenance, training, and training materials are widespread and deep. It appears that beyond providing the basic salary, most other components of the budget are very problematic. In the Balaka district office we visited, only 17% of the budgeted funds for the fiscal year had been transferred from DAES to the district to be used for programming with less than one quarter of the year remaining.

With decentralization, the national and district MOH budgets are planned separately with the national Ministry given technical advice around budget planning, but nutrition is often ignored in this advice. Given the high cost of medicine, districts may reach their budget ceiling before allocating financial resources for nutrition education.

Counting on donor agencies to fund agriculture extension and nutrition education in the long term is not the most desirable option. However, donor funds can be very useful in building Ag Ext and Nut Ed extension capacity and in sparking interest in new technologies and educational programming by supporting efforts that are seeking new solutions that can be scaled up. Working through stakeholder groups and facilitating discussions on perceived needs in a community should always be done before a new program is taken to the field. DAES has a system for doing this using Participatory Rural Analysis but time, training, and other resource constraints have limited the widespread use of the approach. Ways whereby all actors whether public, civil society or private sector will engage in dialogue before a program is rolled out need to be found so that budget and infrastructure needs can be evaluated and coordinated and duplication and inefficiency avoided.

4. PROGRAM QUALITY AND REACH

Virtually all sectors are embracing the lead farmer approach. Many programs are also adopting the Care Group system. Both utilize volunteers. The lead farmer system tries to make sure the lead farmer has the necessary tools to “lead” other farmers. NGOs often incentivize lead farmers. The Care Group tries to ensure that the CGV has sufficient nutrition knowledge to support PLW and children under 2. While this has advantages of spreading the reach, there are differences in how each of these systems are rolled out in the field, incentives being offered to volunteers, time commitment of volunteers, retention rates, and quality control of message delivery. The impact on the GOM system for coordination can be quite challenging and problematic.

The general lack of agricultural diversity was mentioned a number of times as limiting the quality of programs because of the limited cropping alternatives that are available. A long-standing tradition of growing maize has made it difficult to expand production of nutrition-dense crops, such as fruits, vegetables, and various legumes. The FISP and some civil society programs are attempting to introduce other crops such as legumes and high value vegetable crops. The perception of most farmers is that growing maize is the best way to assure that food will be available throughout the year irrespective of the limited nutritional value of a maize based diet.

The assessment underscores a number of gender issues that could affect the delivery and uptake of agriculture extension services such as: (1) different roles and responsibilities of males and females in agriculture and domestic responsibilities; (2) cultural norms limiting women’s direct engagement with male extension agents; (2) different constraints in accessing production and marketing information and technology, (4) women having limited land rights and (5) decision making power over the use of income earned or saved and other resources, (6) household dynamics that affect access to credit to pursue extension knowledge, (7) women’s lower level of literacy and education hindering the adoption of technologies and knowledge, and (8) hazardous conditions for women to engage in the market (GeoSAS 2012; USAID/Malawi, 2008; Moyo & Mandaloma, 2014). The predominate focus of increasing women’s participation in delivering and receiving extension services addresses only part of the solution to these issues. For high quality programs that meet the needs and priorities of male and female beneficiaries additional work needs to be done.

5. COORDINATION AND HARMONIZATION

From virtually every person or group interviewed during this assessment, overall coordination and a lack of comprehensive planning was cited as a major constraint. It also appears that where coordination exists, it is much more likely to occur at the highest levels of government and much less likely to happen at the field or grass roots level where it is most essential. This lack of coordination and harmonization is seen both within the government sector as well as across sectors where civil society and the private sector engage in activities either using public sector employees or working hand-in-hand with public sector employees. As more sector actors get involved, coordinating activities becomes more and more challenging.

The problem of insufficient coordination is made more difficult because of ministry structures. Each ministry, as well as DNHA, and the SUN structure, has its own unique set of committees and committee structures. This does not lend itself to coordination and leads to confusion at the level of the end-user. Within the SUN structure there are national, district, and area committees. National committees are established and moving forward although there are duplication of members and clarity on the role of different but similar committees. The nutrition committees at the district and area level do not appear to be functional. In most cases, field staff including AEDOs, HSAs and CDAs want to harmonize their work but the constraints of committee and administrative structures that are not working smoothly make that extremely difficult.

Coordination within the domain of GOM workers was identified as a key weakness. AEDOs, CDAs and HSAs, are operating in the same villages with often little or no coordination between units. This is compounded by the fact that the organizational structure of their respective ministries do not match, as earlier discussed in this report. There is also a perceived inequality as each sector has a different level of required education. At the field-level, those in positions in the different ministries may not perceive each other as equals, even though they are working in the same area.

B. OPPORTUNITIES

1. PERSONNEL AND RELATED SUPPORT ISSUES

With the challenges come opportunities and there were some key opportunities that can be taken advantage of that were identified in this assessment. The need for more high-quality, well-trained public sector staff is clearly apparent throughout this review process. One approach to improve overall effectiveness in Ag Ext would be to consider having fewer people on the books at the field level (many don't exist already in reality) and following a reduction to a more sustainable level, then supporting these staff members with better training, housing, pay and other incentives to perform. If DAES capacity to coordinate NGO activity is significantly strengthened, NGOs could be assigned to work in sections not covered by AEDOs.

Using lead farmers to spread information and skills is widely used by the public, private, and civil society sectors. Yet, there is little data about the quality of lead farmers, their retention rate, nor how effective they are in disseminating improved practices and technologies. In the public sector in particular, the

lead farmer system is highly dependent on successful synergy with the AEDO. If the quantity and quality of training AEDOs receive is enhanced, it should translate to improvements in lead farmer performance as well.

With the adoption of the Care Group System by the GOM and its widespread use by NGOs, there is an opportunity for a review of Malawi's experience. This would draw out Malawi-specific lessons learned, options for integrating multi-sectorial nutrition messages, and ability to scale and sustainability.

Additional use of ICT offers another opportunity to improve AEDOs and HSAs reach. Combining face-to-face interaction between AEDOs and farmers or HSAs and volunteers backstopped by ICT support, is a promising approach

2. PROGRAM CAPACITY

Ongoing curriculum development and enhancement is needed to position LUANAR (including NRC) to lead in both long and short-term training. This should include extension methodology, agricultural production, and post-harvest as well as nutrition-related curriculum. In addition, the option of seconding public sector field staff to private sector organizations for work experience based internships should be explored. This could improve interns back on the job performance and thus, program quality. Internships in the seed or livestock sectors offer potential opportunities.

There is opportunity to apply ICT to support bi-monthly training of AEDOs. This is a critical area requiring further attention.

DNHA along with the ministries involved with SUN should adapt the content around the SUN harmonized messages so it is appropriate for that subject-matter context. For example, in the SUN 1000 Special Days Community Counseling Package section 2.2 focuses on complementary feeding with specific key messages to mothers on proper complementary feeding techniques. This could be expanded to include specific messages related to agriculture such as planting appropriate crops in a home garden at the appropriate time to ensure produce is available when the infant is ready to begin complementary feeding. There is an opportunity to support the dissemination of these messages to the FLW with the finalization of the community trainers' manual.

Public sector, private sector, and civil society needs to look at the broader gender issues related to Ag Ext, Nut Ed, and Integrated Ag-Nut Extension in designing and implementing their programs. An opportunity is to view Ag Ext, Nut Ed, and Integrated Ag-Nut Extension through the five USAID gender domains.

3. INFRASTRUCTURE AND BUDGET

The ultimate solution to any budget problem is procuring an adequate and sustainable source of funding that can be relied on every year to promote the long-term sustainability of the system. Ideally, internal money can be allocated from the GOM to fund Ag Ext and Nut Ed services at a level that will allow for effective programming. There is opportunity for DAES to more rigorously advocate for funding, for MOH to explicitly advocate for nutrition funding within their own budget, and for DNHA to advocate for the

line ministries to explicitly allocate funding for nutrition-specific or nutrition-sensitive approaches where appropriate. Advocacy approaches and skills would need to be strengthened to underpin this process. If adequate funds are not available from the GOM, the two remaining options are donor funds or more specifically for agriculture, charging fees for service to farmers and other stakeholders. The jury is still out, but experience from other countries indicates that most smallholder farmers are typically unwilling to pay for agricultural extension services that are considered part of the public good. They are more likely to pay for some specialized services that in large part they alone, rather than the public at large, benefit from such as veterinary services provided by PSPs for their livestock

Certainly, improvements to roads, wireless connectivity and transportation for government workers would be advantageous. A long-term goal of the GOM is to improve road infrastructure, but this is a slow and expensive process. The promotion of small-scale solar chargers for rural stakeholders has been successful in other countries such as India, as is slowly making its way into the market place in Malawi. In addition to potentially improving the living environment of families, having access to some electricity may also increase the penetration of ICTs into the villages.

4. PROGRAM QUALITY AND REACH

One approach to improving reach of new interventions identified during stakeholder interviews center on building up existing promising approaches such as the model village approach used in the public sector. Through consultation with local government and traditional authorities, a village is selected to become a model. A Participatory Rural Appraisal is carried-out to identify village issues and challenges. Action by all ministries necessary to address issues and problems is called for. Thus, ministries responsible for agricultural production technologies, improving nutrition, gender programming, WASH, forestry, HIV/AIDS, micro-finance, and others, are to be involved in implementing solutions in the one village. This then serves as a model where people from surrounding villages can come to see the impact and benefits of implementing all of these practices. Assessing the operations, sustainability, and scalability of linking Care Groups with farmer organizations is an option to explore more effective programming. Another option is to further explore mechanisms for overlapping the participants of Care Groups with other agriculture groups/clubs/ association and assess behavior changes leading to improved nutrition.

There is potential to improve program reach through the rapidly growing ICT options that are becoming available. The expanded use of ICT was identified as a goal by most of the groups interviewed. Successful incorporation of ICT into programs may help to overcome staff shortages, transportation and budget challenges, timeliness of messages, and referral systems. Finding effective ways to harmonize messages delivered by the various sectors through ICTs must be a priority for future actions.

5. COORDINATION AND HARMONIZATION

The key mechanism identified by stakeholder as giving the greatest potential to improve coordination and harmonization would be involving all sectors (public, private, and civil society) in the design, planning, and implementation of Ag Ext, Nut Ed, and integrated Ag-Nut extension. This level of coordination is very difficult to achieve because of all of the actors involved. Ideally, the GOM Ministry

Directors should take leadership in this as they have by far the largest footprint in the field. Clearly, the MOAFS is the lead in Ag Ext and integrating nutrition into Ag Ext. The DAES committee structure is beginning to take hold in some districts, but is weak and needs strengthening in others. Currently, the operational focus of Nut Ed at the district level is unclear, much less the operational focus for integrated Ag-Nut programming. In some cases where donor funds are channeled through projects involving public sector workers, it is not clear who should lead the coordination efforts. Linking in donor committees into this process was also identified as an area where harmonization could be enhanced. The bottom-line is whoever does coordination should be trained appropriately and have the authority to coordinate.

XI. RECOMMENDATIONS

Findings of this assessment underscore the need to revisit and act on several of the recommendations put forward in the MEAS pluralistic extension system scoping mission (Simpson, Heinrich, & Malindi, 2012). Namely, a review of DAES program activities in light of resources as too much is being attempted with too few resources, the finalization of the core functions analysis as input into that review, and strengthening of DAES stakeholder panels. ASWAP (GOM/MOAFS, 2011) identifies specific actions to promote diversification of food production for improved nutrition at household and national levels. This assessment recommends DAES pursue those actions under its purview.

If DAES is to further integrate nutrition into its extension activities, the capacity of DAES as an institution and of its staff needs to be fortified. Adding further Nut Ed responsibilities to a weak system will not result in the desired impacts. Above all, DAES capacity to perform its revised role in a pluralistic, decentralized system—particularly that of initiating and strengthening coordination and setting and monitoring quality standards for extension services needs to be improved. This calls for investment in an institutional and capacity development initiative which this assessment recommends.

Underlying this is the recommendation to review the existing agricultural extension policy. Malawi's extension policy, *Agricultural Extension in the New Millennium*, was written in 2000. The policy remains valid and what is proposed is in-line with global trends in Ag Ext. Nonetheless there are various issues with its implementation and it would benefit from an in-depth review to identify areas that may require revision to reflect current challenges. Development of a costed time-lined strategy document to promote policy implementation would complement policy review.

Premised by the above, more specific recommendations follow. These are organized by categories of *Challenges and Opportunities* earlier described, although some recommendations cut-across categories. Finally, promising approaches and concepts for integrating Ag-Nut for refinement, assessment, and potential scaling up are recommended.

A. PERSONNEL AND RELATED ISSUES

1. DEVELOP POLICY ADDRESSING GOM AND NGO WORKING RELATIONSHIPS AND CONDITIONS.

Questionably the policy issue of highest-priority targets the working relationships and conditions between the NGO community and DAES. DAES capacity to perform its role as driver of the pluralistic extension system which includes, among others, coordination of NGO activity is weak. This is both a policy and a capacity development issue which requires attention and offers opportunities for action. A very specific issue is the lack of harmonized uniform incentives and other allowances. This lack creates a very disheartening atmosphere, dissonance, and mistrust and separates the very people who are to work together. The most likely mechanism through which these issue could be addressed is through a revised Ag Ext policy. Exploring these issue would require a series of substantive in-depth dialogue among DAES and its stakeholders. The opportunity to move these issues forward to consensus and resolution could have tremendous pay-off for all involved with the Ag Ext sub-sector.

2. INVESTIGATE RE-ESTABLISHING DAES FIELD-LEVEL TECHNICAL ASSISTANT POST.

The shortage of AEDOs is significant, pervasive, and continues to ruthlessly limit the number of farm families reached by public sector extension. Estimates suggest between 15% and 20% of farmers receive extension advice on fertilizer and maize varieties (Chirwa & Dorward, 2014, p. 118). Unpublished estimates of AEDO vacancy rates range anywhere from 30% to 60%. AEDO qualifications have changed over the past years from certificate to diploma-level. The MOAFS has reportedly upgraded all, or most all, AEDOs to certificate degree via a special 18-month course at NRC. Certificate holders were previously agriculture Technical Assistants, which post has been abolished. It is worth investigating the trade-offs and costs/benefits of potentially reinstating the agriculture Technical Assistant position in DAES as a means of increasing extension coverage. A component of the costs/benefits must include the orientation training, systematic refresher training, and other support these staff would require to perform satisfactorily.

3. INCREASE FEMALE-STAFF AT THE AEDC LEVEL.

Given difficulties of posting female AEDOs, begin the process of building a more gender-balanced staffing pattern by filling open AEDC posts with qualified females. Support a *Women in Agriculture* activity whereby district and EPA-level female staff come together quarterly to discuss their work, ways to increase recruitment of female staff, and opportunities to support each other.

4. STUDY COSTS OF DEVELOPING A MODEL DISTRICT.

Commission a study to identify the estimated costs of having a full complement of well-equipped staff capable of full coverage of a district and its EPAs. Use the information obtained for budget advocacy and to advise donors and other extension service providers of DAES extension delivery costs.

B. PROGRAM CAPACITY

1. FINALIZE THE DAES FOOD AND NUTRITION BRANCH AGRICULTURE NUTRITION STRATEGY.

The Food and Nutrition Branch of the DAES is currently in the process of drafting an *Agriculture Nutrition Strategy* but, due to resource constraints, is unsure of the finalization of the document. This is an opportunity to support finalization of the draft and develop an accompanying action plan to facilitate implementation of the strategy.

2. IMPROVE MATERIALS AND TRAINING NEEDED FOR INTEGRATED AG-NUT EXTENSION.

- DNHA, along with the ministries involved with SUN, needs to adapt the content around the SUN harmonized messages so it is appropriate for that subject-matter context. For example, the SUN 1000 Special Days Community Counselling Package section 2.2 focuses on complementary feeding with specific key messages to mothers on proper complementary feeding techniques. This could be expanded to include specific messages related to agriculture such as planting appropriate crops in a homestead garden at the appropriate time to ensure produce is available when the infant is ready to begin complementary feeding.
- The DAES *Community Nutrition Manual* requires updating and support for dissemination. Issues on gender in group formation, benefits from nutrition applicable to agriculture such as greater productivity and higher profits, and current SUN messages along with context-specific messages as mentioned above, should be incorporated.
- The LUANAR short-term SUN course should provide an opportunity for the participating teams to develop an implementation plan for integrating across the different sectors. The community trainers' manual that accompanies the LUANAR training needs to be finalized so those trained can have a resource for training their staff when they return to the field.
- Both Bunda and NRC agriculture curricula would benefit from review to further integrate nutrition-related content.
- Pilot the use of video to support AEDO bi-monthly training.
- Focus on training FLWs: AEDOs, HSAs, and CDAs. Train them together on integrated Ag-Nut to decrease training costs and increase cross-sector integration.
- Provide support for communication and dissemination of integrated Ag-Nut programming through channels such as radio, traveling puppet shows, and advertising campaigns. Investigate the success of "yellow vans", identify, test, and document alternative ways of reaching rural audiences.

3. BUILD "CENTER OF EXCELLENCE" CAPACITY.

Integrated Ag-Nut programming is gaining importance in the international development community. Building Malawi's capacity towards functioning as a Center of Excellence in this programming is worthwhile.

C. INFRASTRUCTURE AND BUDGET

The ASWAP (GOM/MOAFS, 2011) calls for demonstrations on processing and utilization of foods in a diversified diet and development and dissemination of local recipes for purposes of dietary diversification and dietary adequacy. Nut Ed tends to be disseminated more through messaging than through practical hands-on activities. Ideally, such activities occur at the village level with groups working together at an individual's home or a central village meeting place. Most GOM facilities for these hands-on activities are in very poor condition. To rectify this, selected MOAFS Day Training Centers and Residential Training Centers need to be remodeled and rehabilitated so there is a clean, safe environment for nutrition demonstrations and nutrition group meetings. The outcomes of village-based and training center-based demonstrations should be compared.

Through training and mentoring, senior DAES staff can become more adept at advocating for sufficient resources to plan, implement, monitor and evaluate integrated Ag-Nut extension programs. Technical Assistance should be provided to support this training and mentoring.

D. PROGRAM QUALITY AND REACH

1. ASSESS CURRENT AND DESIGN FUTURE ACTIVITIES

Assess current and design future activities in light of the Ag-Nut guiding principles and selected Ag-Nut Pathways (Herforth & Harris, 2014). There is widespread acceptance of ten guiding principles for integrating nutrition into agriculture programming. These principles help public sector, private sector, and civil society improve the quality of programming through identifying the particular needs and approaches to be used when assessing existing and designing future integrated Ag-Nut Extension Services. The principles are: (1) include nutrition objectives and indicators; (2) assess local context; (3) target the vulnerable; (4) collaborate/ coordinate with other sectors; (5) attend to the natural resource base; (6) empower women; (7) diversify production; (8) improve food processing, storage, and preservation; (9) expand markets and market access; and (10) include Nut Ed and promotion. Within the context of nutrition in Malawi, the empowerment of men and youth is also an important principle. In addition to these principles, several pathways linking agriculture and nutrition have been identified that could guide future Integrated Ag-Nut Extension Service design. These are: (1) agriculture for food production, (2) agriculture for income, and (3) women's empowerment.

Assessing existing activities in light of these principles and pathways will assist implementers to identify areas within activities that could be strengthened to improve nutrition outcomes. Applying principles and pathways analysis to new activity design will help design teams ensure they are developing activities based on accepted principles and that link across each element of the selected pathways, thus increasing the probability of improving nutrition outcomes. It will also identify opportunities in which Nut Ed or other nutrition-focused interventions need to integrate agriculture to improve the sustainability of their nutrition outcomes.

2. BROADEN GENDER-RESPONSIVENESS IN DESIGN AND IMPLEMENTATION TO IMPROVE QUALITY.

Gender within integrated Ag-Nut Extension Services needs to be broader than the participation of women in delivering and receiving extension services. Focusing on participation alone does not address many of the gender issues raised earlier in this report. For high quality programs that meet the needs and priorities of male and female beneficiaries/clients, future programs need to design integrated Ag-Nut extension within the broader gender context as understood through the lens of USAID gender domains: (1) laws, policies, regulations, and institutional practices; (2) cultural norms and beliefs; (3) gender roles, responsibilities, and time used ; (4) access to and control over assets and resources; and (5) patterns of power and decision-making (USAID 2013). In implementation, partners will need training in understanding, applying, and monitoring progress in these domains

3. INVESTIGATE WAYS TO IMPROVE QUALITY OF LEAD FARMER PERFORMANCE.

Many, if not all, stakeholder groups, including public and private sector and civil society, rely to a greater or lesser extent on the lead farmer approach to facilitate their programming. The lead farmer concept itself is sound but coordination between lead farmers and harmonization of messages both to and from lead farmers could be improved. Investigating minimum standards for lead farmers, why some lead farmers are more successful than others (positive deviance), and ways to retain successful lead farmers is called for. A lead farmer is intended to have specialized knowledge and skills in one or more areas. A simple data base of lead farmer areas of expertise within a given EPA or district could be helpful in coordinating lead farmer activity within and between villages.

4. EXPAND REACH THROUGH ICT.

a. Continue and expand funding of ICT-related projects and scale up successful models.

One of the most promising opportunities for positively impacting the agricultural extension and nutrition advisory services in a cost effective and efficient manner is through expanded use of ICTs. With a more technology-based approach, fewer people in the field can have a greater impact, as the need for travel to provide “face time” is a lesser priority. Certainly, public sector extensionists as well as those in the private sector and civil society still need to get out to the field and take the pulse of their constituency, but information dissemination and feedback in many cases can also occur on a very timely basis through radio, SMS or custom made videos. Supporting field extension staff with pre-loaded tablets containing Ag-Nut information, complemented by these other ICT tools, can strengthen extension, farmer, and farm family overall level of engagement by increasing the quantity and quality of Ag-Nut messaging.

Pilot projects that have already been run in country show the potential benefits of getting timely cultural market information into the hands of farmers using SMS messaging. Combining/synergizing the impact of multiple ICT approaches is also being piloted with good success. An SMS can be used to remind clientele of an upcoming radio broadcast which will feature agricultural information or nutrition messaging, or a radio broadcast may inform farmers about an upcoming field day or program where

informative videos may be showing. Another example of combined approaches that was generally held in high regard by the DAES staff we interviewed was the use of the yellow van. The yellow van brought with it a lot of buzz and excitement when it came to a village and included multiple uses of ICT including pamphlets, audio/loudspeaker messages as well as videos. If the cost and maintenance of keeping these vehicles in service is too prohibitive, consider a study to determine how to effectively and economically create this same excitement in a village without having a dedicated vehicle. Perhaps a stand-alone video player and projection screen with some roll up posters that could be moved about in a regular vehicle could be a more economical way to generate this same sort of enthusiasm.

The use of mobile money or cell phone based electronic banking can have a positive impact on many aspects of the lives of rural dwellers. First, the money from a sale is more quickly available and may also result in more equitable access to funds for women than when payments are done in cash or require a trip to a bank where the man would more likely be involved. In addition to the MM projects, the use of cell phone based tracking systems has proven to be very effective in the pilot e-Voucher for FISP and also for tracking inventories of seed and fertilizer. This will have an indirect positive impact on rural prosperity as it will enhance the efficiency of the system in the case of FISP and also encourage more private entrepreneurship in the case of better monitoring of input supplies. This will strengthen the value chain, which should positively impact the profitability of the farmer.

b. Support specific DAES-driven ICT activities.

Conduct an in-depth feasibility study with DAES to determine the technical capacity, human development and maintenance capacity available and required to support different ICT approaches, which could be adopted for use by DAES. After this study, design a targeted activity to address technical and human capacity gaps identified. Support DAES to field test, on a small scale in one district, three or more promising ICT Ag-Nut programming approaches, documenting the process and results in order to scale up the most appropriate approach/approaches. As part of this activity, consider providing and testing extension use of tablets pre-loaded with relevant subject matter. Convene a one-day ICT roundtable to facilitate discussion of and to showcase promising applications of ICT in agriculture-nutrition programming with public, private, and civil society stakeholders. Identify an ongoing successful ICT Ag Ext or Ag-Nut activity in the region and arrange for DAES staff to visit. Develop and detail a menu of possible ICT approaches which could be applied to strengthen and facilitate coordination among Ag-Nut GOM stakeholders at the national, district, and EPA levels. Sponsor long-term M.A. training at LUANAR or a regional institution for DAES staff in ICT.

E. COORDINATION AND HARMONIZATION

It is worth emphasizing that this assessment strongly recommends both building DAES capacity to coordinate Malawi's pluralistic, decentralized extension system and building the elements of the DAESS system, particularly the stakeholder panels. This should involve a mix of support for meetings; technical assistance; short course training; public, private, and civil society conferencing and dialogue; visits to other-country extension systems implementing extension under similar conditions; and long-term training in extension management.

A district and EPA-level coordination fund should be established to support AEDO, HSA, and CDA coordination and harmonization activities as well as public, private, and civil society sector project activity coordination and harmonization activities. DAES should be supported to create an environment that is conducive to coordination, collaboration, and integration of Ag-Nut programming.

DAES, DNHA, and the other ministries involved in integrated Ag-Nut should be encouraged and supported to evaluate the current committee structures and consider realigning and merging committees to better position stakeholders to produce a coordinated and harmonized program and message. Getting the AEDOs, HSAs and CDAs in the same committee structures and conversations could contribute to improving GOM's capacity to address Ag Ext, health and nutrition, and community-development related issues.

F. PROMISING APPROACHES AND CONCEPTS FOR INTEGRATED AG-NUT PROGRAMMING

The assessment identifies several promising ways for integrating agriculture and nutrition in extension. The first, complementing Ag Ext with the Care Group System, is currently being tested in selected districts and needs to be closely followed to assess outcomes. The second, Model Villages, while having some on-the-ground experience, that experience is not well documented. The third, FISP Ag-Nut Integration is untried and thus needs a proof of concept trial.

1. COMPLEMENTING AG EXT WITH THE CARE GROUP SYSTEM

Given the adoption of the Care Group System by the GOM, several civil society actors, and some private sector associations, the promising option of integrating Care Groups with farmer associations as well as with other farmer groups/clubs (such as milk bulking groups, savings and lending groups) and the overlaying of Care Groups with Ag Ext interventions in the same household needs to be further investigated. The Care Group System and its integration with Associations is earlier described in this report in Section III. The investigation should be done in collaboration with DAES and DNHA and needs to consider the following: role and support of DAES and AEDOs in the system and feasibility of taking the system to scale, its sustainability, and its impact on improved nutritional outcomes. How HSAs and CDAs can be integrated in the system also requires examination.

2. MODEL VILLAGES

Earlier described in Section III, Model Villages is an approach DAES applies to holistically identify and address problems faced by villagers. There is some anecdotal evidence to suggest this component of the DAES system has promise and can address integrated Ag-Nut issues. However, any successes or failures are not well documented. As the Model Village is part of GOM's approach to DAES service provision, which includes both Ag Ext and Nut Ed, this approach is worth further study. A factor critical to the success of this approach is the full participation of other sector public institutions such as health, gender, and local government. Ways to ensure their engagement need to be found in order for this approach to gain traction. As well, how the private and civil society sector would participate is also a question to be examined.

3. FISP AG-NUT INTEGRATION

While its future is under discussion, FISP is by far the largest GOM agriculture program. DAES staff are critically involved at various points in its implementation. In addition to ASWAP call for increasing extension advice to farmers on how best to use fertilizer provided via the subsidy, FISP offers an existing entry point for DAES extensionists to include Nut Ed as coupons or extension advice is provided FISP participants. The importance of both food security through maize production and diversification to improve diets through legume production and other nutrient-dense crops could potentially be part of the extension/nutrition message. This appears to be a golden opportunity but certainly requires further investigation.

APPENDIX A

STATEMENT OF WORK:

Assessment of Nutrition and Extension and Advisory Services Systems in the Feed the Future Focus Districts in Malawi

1. Introduction

The USAID/Malawi Mission is planning to design an activity (a separate assignment) that will strengthen the delivery of extension and advisory services (EAS) and nutrition education in its Feed the Future (FtF) target districts in the country in a coordinated and integrated manner.

To inform the design process for this activity the Mission is seeking services of consultants to carry out a comprehensive assessment of nutrition and EAS across a wide array of service providers in the FtF focus districts of Lilongwe, Mchinji, Dedza and Ntcheu, in central Malawi; and Balaka, Machinga and Mangochi, in south Malawi.

2. Objective of the Assignment

Assess the effectiveness and capacity of EAS and nutrition outreach systems across public and private services providers with the aim of informing the design of an activity that will strengthen delivery of extension and nutrition outreach services in the seven FtF focus districts in a coordinated and integrated manner.

3. Background

3.1 The USG Feed the Future Strategy:

The objective of Malawi's FtF strategy is to sustainably reduce poverty and hunger. This objective represents specific efforts within the Mission to align agriculture and nutrition programming in order to leverage resources from across the FtF and Global Health Initiative (GHI) portfolios. The coordination of the two initiatives is a critical component of the Mission's overall assistance strategy and is how USAID/Malawi will be able to achieve the FtF expected results of lifting more than 275,000 Malawians out of poverty and reducing the number of underweight Malawian children by at least 100,000.

The USAID Malawi's FtF strategy focuses on: (a) Advancing value chain competitiveness; (b) Improving productivity; (c) Improving community capacity to prevent under nutrition; (d) Promoting innovation; and (e) Developing local systems capacity.

EAS and nutrition outreach are key to achieving the Mission's FtF objectives.

3.2 Status of Agricultural Extension:

Twenty years ago the Government of Malawi's (GoM) Ministry of Agriculture and Food Security (MoAFS) adopted a pluralistic demand driven extension system. In this system, the GoM recognizes the role of other extension services providers to deliver demand driven services. During this time period, a poor functioning District Agricultural Extension Services System (DAESS) was put in place to provide a framework for provision of extension services in line with the GoM's decentralization policy. The performance of DAESS has been met with mixed results. Since its inception the system has faced a number of challenges including the GoM's underinvestment in

extension services in favor of the Farm Input Subsidy Program (FISP). To what extent DAESS is still capable of delivering demanded extension services is not known.

The introduction of the new agricultural extension policy resulted in some changes in the way extension services are provided in the country. One of the changes is that the policy allowed the participation of other service providers, including non-governmental organizations (NGOs) and private sector, apart from the government. Since the colonial period, agricultural extension service provision had mainly been the responsibility of the government, through the Department of Agricultural Extension Services (DAES). Other initiatives implemented soon after independence by the government included the establishment of the Malawi Young Pioneers Training Bases for training rural youth in various agricultural skills and providing related knowledge, and the establishment of smallholder farmer crop authorities for coffee, tea, and tobacco.

Under the existing extension policy, the mandate of DAES is to:

- Coordinate agricultural extension activities for all technical departments of MoAFS;
- Institutionalize a decentralized agricultural extension service system in all districts;
- Develop and disseminate agricultural extension messages;
- Enhance research/extension/farmer linkages;
- Coordinate formation and management of farmer organizations;
- Enhance mainstreaming of gender and HIV/AIDS issues in all agricultural programs;
- Enhance agribusiness knowledge and skills in staff and farmers; and
- Enhance community nutrition knowledge and skills in staff and farmers.

Early in 2012 USAID/Malawi commissioned a scoping assignment of the Malawian pluralistic demand driven extension system by Modernizing Extension and Advisory Services (MEAS) activity, a USAID/Washington mechanism. The purpose of this assignment was to identify strengths, weaknesses, opportunities and threats related to the Malawian pluralistic demand driven extension system that would inform the planning and implementation of the Mission's FtF activities.

Among major findings the MEAS scoping assessment noted that:

- i. The foundation for a strong and effective demand-led and market-driven EAS exists in Malawi.
- ii. With a concerted effort and targeted funding, it should be possible to capitalize on the existing potential and develop a highly effective pluralistic national EAS that, over a relatively short period of time, could become a model for other countries in southern Africa.

The assessment also noted some specific areas requiring attention, including:

- a. Scaling of DAES program according to available resources;
- b. DAES transitioning itself from a service delivery organization to a development facilitation organization;
- c. Finalizing the Ministry wide Core Functions Analysis for better coordination and allocation of resources;
- d. Integrating agribusiness in the operating systems of DAES;
- e. Improving research/extension linkages;
- f. Providing necessary in-service training for DAES staff;
- g. Improving training in extension and advisory services provision; and
- h. Enhancing private sector and civil society involvement in EAS.

3.3 Status of Nutrition Outreach:

The nutritional status of households is intricately connected to economic growth and food security in Malawi, both as an input to and potential outcome of economic growth and agricultural development. Accordingly, improving nutrition represents a significant policy priority of the GoM in both the health and agricultural sectors, as demonstrated by the establishment of the Department of Nutrition, HIV and AIDS (DNHA) under the Office of the President in 2005.

There currently are a number of public and non-public institutions active in dissemination of nutrition messages: notably the Ministries of Agriculture and Food Security (MoAFS), Health (MoH), Education, Science and Technology (MoEST), Gender, Children and Social Welfare (MoGCSW), Local Government and Rural Development (MoLGRD), and non-state actors (NSAs).

A capacity assessment carried out by FAO in 2009 clearly revealed a very high vacancy rate in key government nutrition implementing departments (*Ref. ix*). In fact all agencies, government and NGOs operating at field level identified limited numbers of front-line staff as a major obstacle to successful implementation of nutrition programs and scaling-up of successful interventions. The Natural Resources College and Bunda College have responded by increasing student enrolment in the diploma, degree and MSc programs in an effort to meet the demand.

The assessment further concluded that collaboration and coordination among agencies with nutrition interventions is weak. Different agencies operate in the same district without adequate communication or coordination. As a result, many districts have disjointed programs and there is currently no comprehensive mapping to understand who is doing what, where and at what level. This has led to a high degree of fragmentation and lack of coordination between agencies at district and community levels. For example, the European Union funded three NGOs and all three ended up working in the same district of Salima. All nutrition stakeholders agree that efforts aimed at harmonizing approaches between agencies are limited – there is no holistic approach to nutrition programming in Malawi. Development partners (donors) and nutrition implementing partners have difficulties coordinating their nutrition efforts across sectors.

The Department of Nutrition, HIV and AIDS was created in 2005 to lead the implementation of the National Nutrition Policy and Strategic Plan (NNPSP)(*Ref. viii*), facilitating standardization, coordination and improvement of the policy in all sectors of the economy with the goal of improving the nutritional status of all Malawians. NNPSP recognizes nutrition as a cross-cutting issue and calls for the placement of nutrition specialists in each ministry and department. Joint planning efforts are expected to ensure a comprehensive national approach to nutrition issues. The key strategic objectives include prevention and control of most common nutrition disorders, like anemia and stunting, among women, men, boys and girls in Malawi with emphasis on vulnerable groups; increased access to timely and effective management of the most common nutrition disorders and creating an enabling environment for effective implementation of nutrition services and programs.

In order to better address key communication challenges related to nutrition, DNHA also initiated development of a National Nutrition Education and Communication Strategy (NECS) (*Ref. xii*) that aims to ensure broad and effective dissemination and promotion of nutrition at all levels. The strategy was developed as the main instrument in the Scaling-Up Nutrition (1000 days) initiative. Activities include training at all levels down to community level for effective orientation and dissemination of key nutrition messages. All key government departments, NGOs, training institutions and the media have specific roles to play in the strategy.

Currently Malawi is focusing on community-based action, with the 1,000 Special Days National Nutrition Education and Communication Strategy being prioritized from 2012 to 2017 to reduce child stunting among children under two years to under 20% through behavior change and awareness raising at the community level. This includes a combination of means using mass and community media, family counseling, awareness-raising of local leaders and capacity building of multi-sectoral frontline workers.

4. Scope of Work

4.1 Period of Performance

The precise period of performance for this assignment is subject to agreement between the SEG Office and the lead consultant but is expected not to exceed 20 days (including weekends and public holidays). Any modifications or extensions will have to be requested through SEG Office Chief for review and discussion.

4.2 Place of Performance

The consultant will perform the majority of the work in Lilongwe and may be required to travel to any of the seven Feed the Future target districts for consultations with district agriculture and nutrition staff from public and private sector service providers. **Deliverables**

It is expected that this assignment will build on the January 2012 Modernizing Extension and Advisory Services (MEAS) Rapid Scoping Mission (*Ref. v.*) The MEAS scoping assessment concentrated on EAS and did not necessarily focus on the delivery systems for nutrition and other services. It is therefore expected that this assignment will assess EAS and nutrition education systems in light of opportunities for integrating nutrition with agricultural extension services delivery systems.

The main **deliverable** will be a detailed report that will inform the design of an activity aiming to strengthen the delivery of EAS and nutrition education in the seven FtF districts.

4.3 Methodology and Key Outputs

ii. Work plan

In consultation with the SEG Office, the consultant will produce a work plan and meeting itinerary within the first two days of the assignment.

iii. Assessments

Assessment of existing services, including: the services delivery structures, collaboration among the actors (at all levels), capacities and capabilities of the actors involved, effectiveness of current programs in the districts, etc.

Mid-way through the assignment preliminary findings of the assessment will be presented to stakeholders to solicit additional guidance. A draft assessment report will be submitted to the SEG Office Chief before departure of the lead consultant from Malawi and a final version two weeks thereafter.

The consultant is expected to consult with Ministry of Agriculture and Food Security (MoAFS) (Ministry Headquarters and DAES Headquarters), Department of Nutrition and HIV AIDS (DNHA) in the Office of the President, district extension and nutrition personnel, Ministry of Gender, Children and Social Welfare (MoGCSW), Ministry of Health (MoH), Ministry of Education (MoE), Non-Governmental Organizations (NGOs), private sector service providers and others to assess their capacity strengthening needs. It is understood that the list of needs will not be exhaustive at this point as needs are bound to be more evident at the design stage.

The assignment will mainly involve review of documents and meetings with various stakeholders (at policy and implementation levels), including development partners such as the Flanders International Cooperation Agency, World Bank, DfID, Norwegian Government, UNICEF, FAO, etc.

iv. Guidance:

In addition to other methods the consultant might propose, it is strongly recommended that he/she ensure that the following are included:

a. Determine necessary contacts for interviews/meetings

Discuss with the SEG Office issues surrounding nutrition and extension in Malawi and receive guidance on the necessary contacts and literature to consult (within the first two days of the assignment).

b. Review available literature

Review available literature on nutrition and EAS in Malawi, including assessments that have been conducted on these sectors in recent years (see suggested documents). It is expected that the consultant will collect additional documents from stakeholders.

c. Consult with key stakeholders

Consult with key stakeholders at all levels from all sectors (i.e. private, public, donor and NGO) working in the field of EAS and nutrition in the Feed the Future focus districts. It is expected that more time for consultation will be spent with DAES headquarters and district staff.

d. Study the structures and systems of service provision across the service providers

Through literature review and interviews, develop a clear understanding of the services planning and delivery structures of the government, private sector and NGOs involved in EAS and nutrition.

e. Determine the extent of nutrition and EAS services provision

Study current status of EAS services provision (building on work done by MEAS in 2012) and nutrition education in the seven districts and establish gaps, e.g. who the services providers are, where in the district they work, the capacity of the organizations and what services they provide. Establish whether or not any operational linkages exist in the provision of services across the array of providers.

f. Assess the extent and effectiveness of current support to DAES

Assess the extent and effectiveness of current support provided to DAES and other services providers (in nutrition and EAS) by various development partners and GoM. Identify areas of complementarity (existing and/or potential) among the support and service providers and weaknesses or gaps that need to be addressed.

g. Assess the effectiveness of NSA and government EAS and nutrition programs

Assess the effectiveness of NSAs and government EAS and nutrition programs in the districts and at the community level.

h. Identify key policy challenges

Identify and document key policy areas presenting potential opportunities and challenges to EAS and nutrition outreach activities.

i. Assess current and potential future use of ICT

Assess opportunities for the use of ICT to increase EAS and nutrition outreach.

j. Gender and sustainability assessment

Assess gender and sustainability of nutrition and EAS interventions in relation to extension and advisory services and nutrition outreach. The assessment should specifically examine gender-related obstacles to reducing gender gaps, and opportunities to enhance women's participation and leadership in line with USAID's Gender Equality and Women's Empowerment Policy (*Ref. xvi*).

5. Logistics

The consultant will work from a place agreed with DAES and the Mission in Lilongwe. The Mission will make a provision for transport for travel to consult with stakeholders.

6. Team Composition

- a. An extension expert from BFS, or most likely MEAS (100% of the duration);
- b. A local consultant with full knowledge of the structures and operations of DAES (70% of the duration); and
- c. A local nutrition expert with knowledge of existing nutrition priorities in Malawi and the operational structures of nutrition education services providers (50% of the duration).

7. Suggested Background Literature

A. Overarching Policies

- i. The Agriculture Sector Wide Approach (ASWAp): Malawi's prioritized and harmonized Agricultural Development Agenda. Ministry of Agriculture and Food Security, GoM, 2010.
<http://www.caadp.net/pdf/Investment%20plan%20-%20Malawi.pdf>
- ii. International Development Association International Finance Corporation and Multilateral Investment Guarantee Agency: Country Assistance Strategy for the Republic of Malawi for the Period Fy13 – Fy16, December 17, 2012.
www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/02/08/00035088120130208104235/Rendered/PDF/741590CORRIGENDUM0IDA0R20130000302.pdf

B. Integration of Nutrition into EAS

- iii. The Integration of Nutrition into Extension and Advisory Services: A Synthesis of Experiences, Lessons, and Recommendations. A Global Forum for Rural Advisory Services (GFRAS) and the World Bank Secure Nutrition Knowledge Platform Collaboration. Fanzo, J. *et al.*, September 2013.
http://agrilinks.org/sites/default/files/resource/files/Fanzo,%20J%20et%20al%202013%20-%20Integration%20of%20Nutrition%20into%20EAS%20-%20GFRAS%202013_09.pdf

C. Extension and Advisory Services

- iv. The District Agricultural Extension Services System: Implementation Guide, Ministry of Agriculture and Food Security, Lilongwe, Malawi, November 2006 (a copy can be sent via email).
- v. Strengthening Pluralistic Agricultural Extension in Malawi: Report on the MEAS Rapid Scoping Mission, January 7-27, 2012.
http://www.afaas-africa.org/media/uploads/publications/meas_country_report_malawi_-_jan_2012.pdf
- vi. Managing change and reform in the Department of Agricultural Extension Services in the Ministry of Agriculture, Ministry of Agriculture and Food Security, Malawi, 2003.
<http://www.cabi.org/qara/FullTextPDF/2008/20083325279.pdf>
- vii. Pluralistic Extension System in Malawi, Masangano C. and C. Mthinda
<http://www.ifpri.org/sites/default/files/publications/ifpridp01171.pdf>

D. Nutrition Outreach

- viii. National Nutritional Policy and Strategic Plan. Department of Nutrition, HIV and AIDS, GoM, 2009.
<http://www.standardsfacility.org/Files/EconAnalysis/Malawi/18%20Malawi%20National%20Nutrition%20Policy%20Strategic%20Plan%202009.pdf>
- ix. Nutrition Capacity Assessment in Malawi. Malawi Department of Nutrition, HIV and AIDS, and the Food and Agriculture Organization of the United Nations (FAO), GoM and FAO, 2009.
<http://www.fao.org/ag/humannutrition/21655-0adbb284991dd571e3a35a4c4f9c01f8d.pdf>
- x. Integrated Community-Based Nutrition Intervention Using the Care Group Model. Report by the USAID I-LIFE Program, CRS, 2008.
http://pdf.usaid.gov/pdf_docs/PNADP104.pdf
- xi. The Care Group model is increasingly looked to as a model for integrated programming.
 - <http://www.caregroupinfo.org/blog/>
 - http://www.caregroupinfo.org/docs/Care_Group_Criteria_November_12_2010.pdf
 - http://www.caregroupinfo.org/docs/WRC_Malawi_CS_Final_Eval_2009.pdf
 - http://pdf.usaid.gov/pdf_docs/PNADP104.pdf
- xii. National Nutrition Education and Communication Strategy (NECS).
<http://www.bing.com/search?q=National+Nutrition+Education+and+Communication+Strategy+%28NECS%29&src=IE-SearchBox&Form=IE8SRC>
- xiii. A number of useful resource documents from the Feed the Future Nutrition Global Learning and Evidence Exchange (N-GLEE) Workshop held in Kampala, Uganda in Dec, 2012, can be requested from either the SEG Office or the Spring Project.
- xiv. The USDA International Food Security Assessment - 2013-2023
<http://www.ers.usda.gov/media/1138077/gfa-24a.pdf>

- xv. *Improving nutrition through multisectoral approaches*, World Bank, January 2013.
<https://www.google.com/#q=Improving+nutrition+through+multi-sectoral+nutrition+approaches.+Washington%2C+DC:+The+World+Bank>.

E. USAID Gender Empowerment Policy

- xvi. USAID Gender Equality and Female Empowerment Policy
http://www.usaid.gov/our_work/policy_planning_and_learning/documents/GenderEqualityPolicy.pdf

APPENDIX B

TEAM ARRIVAL/DEPARTURE SCHEDULE

Name	Arrived/Joined	Departed/Completed Assignment
Valerie Rhoe	April 1, 2014	April 17, 2014
Theresa Banda	April 2, 2014	April 25, 2014
Vickie Sigman	April 9, 2014	April 27, 2014
John Peters	April 9, 2014	April 27, 2014
Grace Malindi	April 17, 2014	April 25, 2014

APPENDIX C

PERSONS CONTACTED

Organization	Name	Position	Telephone	Email
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Government of Malawi				

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	Charles Masangano	Lecturer Agriculture Extension,		-

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	Zione Kalunikiza	Lecturer in Public Health Nutrition		
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IFPRI	Noora-Lisa Aberman			
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Key informant - HSAs				
Key informant -	Winston Mtambe	AEDC, Chitekwe		

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	Francis Chokangwa	AEDO, Chigodi Section		
	Stanley Malamulo	AEDO, Chimwaye Section		
	Ethel Lupeska	AEDO, Chowo Section		
	Mrs Chagwira Banda	AEDO, Mchirawagalu Section		
	Denalesi Mkandi	AEDO, Lingodzi Section		
	Geoffrey K. Mwale	AEDO, Chilenje Section		
	Oscar Chihana	AEDO, Ukondo Section		
	Wilfred Longwe	AEDO, Chisambo		
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	Jennifer Mitomoni	Development Facilitator		jmvulamitomoni@gmail.com
Focus Group Discussion – Village Savings & Loan (FGD – VSL)	38 Female 1 male			
Stakeholder panel/VDC/ADC	10 male			
Balaka Field Visit				
Mchinga ADD	G.K. Thaulo	Programme Manager		
	A. Benati	Deputy Programme Manager		
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	R.E. Baluwa	PEMO		
	Y. Tegha	DAES, PEMO		
	M. Mwale	PFNO		
	C. Gwazayani	FNO		
Balaka District Partners	Scholastica Mkandawire	PCI		
	Gideon Limbe (PCI)	PCI		
	Edward Mwale	NASFAM		
	Jonathan Nkliwea	MARDEF		
	Kenson Ndalame	GOAL Malawi		
	Gityn Chitel	AGRESSO		

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	Tamandani Maeghe	Crops Officer		
	Martin Namana	Crops Officer		
	Frank Nyunkalun	Livestock		
	Monica Nambazu	Agriculture Planning Officer		
	Yakosa Tegha	DAES		
	Lucy Chidya	Agriculture Extension Officer		
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Mchinji Field Visit				
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	Benson Zindikirani	A.S.P. Kapondo	265-999 243 363	
	Staniel Chatha	A.S.P. Kapondo	265-995 936 006	
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	Fredrick Kambani	A.S.P. M'sungwi		

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APPENDIX D

GUIDING QUESTIONS

1. Providers

For Service Providers (GOM providers, NGO providers, other non-state providers of Ag Ext, Nut Ed, and/or Integrated Ag-Nut Ext Services).

Note: Date, location, interviewees, interviewers.

Introductions, why we are here, standard questions, etc.

1. Identify the organization as Ag Ext, Nut Ed, or integrated Ag-Nut Ext Services or more than one (or something different).
2. Background on your activities: please describe your relevant activities
 - a. Main thrust of your programs
 - b. Geographic coverage
 - c. Target group (men, women, youth, adult); why this/these groups?
 - d. How the organization came to be engaged in their activity
 - e. What approach is used to deliver services? (e.g., farmer field school, farmer groups, technical assistance to associations, nutrition examples of approaches?)
 - f. Organogram available or brief description of organizational structure (focus on field level)
3.
 - a. Explain general process of program planning.
 - b. To what extent are stakeholders involved in planning programs. Explain.
4. Describe your system of M&E. (for M&E probe about gender-specific indicators and gender-disaggregated data). Indicator for monitoring integration of Ag Ext and Nut Ed. Ask about both monitoring and evaluation.
5. For those of your staff working in integrated programs at the field level, what % of their time is allocated to Ag Ext and to Nut Ed (e.g., 80:20, 50:50, etc).
6. Are the planning processes & delivery approaches different for these integrated programs than your other planning processes and delivery approaches. How. Why.
7. In your organization, what are the gaps in capacity to develop/deliver integrated programs? (If no integrated programs, then gaps in developing/delivering their own programs and what do they think the gaps would be in developing/delivering integrated programs.
8. How are you, or how would you, build the capacity of Ag Ext and/or Nut Ed agents to develop/deliver integrated programming.
9. What opportunities do you see for integrating Ag Ext & Nut Ed? (Give specific examples if possible.)
10.
 - a. What are (or would be) the challenges of delivering integrated programs?
 - b. What are the challenges of delivering your other programs (identify which)?
11. Gender question for reaching beneficiaries: We've touched a bit on gender above, can you elaborate on how gender is taking into consideration in your approach? Please provide the details of the approach (some probing questions are: Are you reaching women with Ag Ext, Nut Ed, and/or integrated Ag-Nut Ext services? How? Are you engaging males in empowering

women in agriculture through Ag Ext, and/or through integrated programs? How? Are you engaging males in nutrition messaging? How?)

Gender question for women and men Ag Ext and Nut Ed agents: There is a growing number of women extension agents/ FLW, what are the constraints women face in delivering these services? How are their constraints different than men's? How is your organization addressing the constraints and opportunities for these women in delivering the services?

Proportion of males/ females in Ag Ext and Nut Ed

12. (a) How is ICT incorporated in your work in general and specifically in integrated programs. (b) What are the constraints to scaling up ICT in your programs in general and in integrated programs?
13. In your opinion, what are the gaps in Ag Ext services and in Nut Ed services.
14. What gaps in capacity to develop and deliver programs, in general and specifically in integrated programs has your organization identified for your organization.
15. Describe your collaboration with other actors in the three sectors (one will be the same sector as that of the interviewee organization: (government, private, civil society). What platforms are there for collaboration or coordination in general and specifically for integrated programs. Describe.
16. From your perspective, how effective do you think your programs are in general and specifically in integrated programs? Why? If differences between general and integrated, why. How are you defining/describing effective. Any studies, reports you might share with us.
17. What do you think are the key policy challenges related to your work for your organization and other organizations in your sector, in general and specifically for integrated programs.

2. ADD-Level DADO, SMS

Name(s):

Date:

Interviewee:

Interviewer:

1. What is the structure of the ADD in relation to Ag Ext and Nut Ed
2. What are the delivery mechanisms for Ag Ext and Nut Ed?
3. What Ag Ext, Nut Ed, and Integrated Ag Ext/Nut Ed Programs in the ADD / District?
4. Who are your partners for delivering Ag Ext and Nut Ed, Integration and/or partners that are providing technical assistance to Ag Ext, Nut Ed, and Integration Ag Ext/Nut Ed?
5. How do you see the integration of Ag Ext, Nut Ed, and gender in the ADD? How do you monitor and evaluate the effectiveness? Disaggregating the data?
6. Sources of financial support for Ag Ext, Nut Ed, and integration Ag Ext/Nut Ed? Are there budget lines for integration and gender?
7. Any challenges/ constraints in delivering Ag Ext, Nut Ed, and Integrating Ag Ext/Nut Ed?

3. Focus Group Discussions: EPA-level, Farmers

Gender of Group (circle): Male Female

Interviewer(s):

Background Info:

- Date:
- Location:
- Program this group has received:
- Program active when (completed, on-going, starting):
- 1. What type of agricultural improvement and nutrition messaged did you learn?

Agriculture Extension:

Nutrition Education:

- 2. Did you receive nutrition messages when receiving agriculture extension services? What messages?
- 3. Did you receive agriculture messages/ knowledge when learning about nutrition? What messages?
- 4. What was the most useful? What was least useful?

Most:
Least:
- 5. What benefits did you get (I.e. more money, healthier, change behavior)?
- 6. Did you change any behaviors or practices?
- 7. Suggestions for improvement of Ag Ext, Nut Ed, and integrated Ag Ext/ Nut Ed?

4. Key Informant Interviews with AEDC, AEDOs, HSAs, CDAs

Date:

Location:

Interviewee(s):

Agent type (circle): Ag health Community development Gender

Interviewer(s):

- 1. What are your roles and responsibilities?
- 2. What is your approach for delivering Ag Ext, Nut Ed, and Integrated Ag Ext/ Nut Ed? Why do you use these approaches? How effective are they (explain)?
- 3. Who do you deliver these approaches to (gender, health status, livelihood, etc.)?
- 4. Where do you get information you use in Ag Ext, Nut Ed, and Integrated Ag Ext/Nut Ed?
- 5. How do you collaborate with your colleagues in other sectors (agriculture, health, nutrition, gender)? Any platforms/ mechanisms for supporting cross-sector collaboration?
- 6. What constraints/ challenges do you have in delivering Ag Ext, Nut Ed, and integrated Ag Ext/ Nut Ed?
- 7. What opportunities do you see for delivering integrated Ag Ext/ Nut Ed?
- 8. Any suggestions for improving your services?

5. Financial Support

Questions for assessment of financial support provided by GOM and donor agencies to DAES, to other Ag Ext providers or programs, to Nut Ed providers or programs, and to integrated services providers or

programs. (Since these questions will be for different Ministries, and donors, they are likely to be about their programs for the most part.)

Note: Date, location, interviewees, interviewers.

Introductions, why we are here, standard questions, etc.

1. Explain
2. (a) What financial and/or technical assistance do you provide to:
 - DAES in support of programming in Ag Ext, NutExt and/or Integrated Ag-Nut Ext programs?
 - To other Ag Ext providers/programs?
 - To Nut Ed providers/programs?
 - To Integrated Program providers/programs?
3. What is the typical length of a grant/funding cycle (1, 3-5 years, longer), is it renewable? What are the major constraints/ challenges to sustaining this funding?
4. How effective do you feel this support is in helping DAES meet its programming agenda?
Same question, if applicable, for:
 - helping other Ag Ext providers/programs
 - helping Nut Ed providers/programs
 - helping Integrated Program providers/programs
5. Do you routinely conduct assessments of the effectiveness or impact of your financial and technical support to DAEA, (or to the other programs: Ag Ext, Nut Ed, Integrated)? (any reports/documents you can share with us)
6. Is there specific funding for DAES to address gender relations and barriers?
Same question, if applicable, for:
 - Other Ag Ext providers/programs
 - Nut Ed providers/programs
 - Integrated program providers/programs
7. Multi-sectoral approach to addressing nutrition: how is it being done, what are plans for doing, what suggestions they may have for doing.
8. How is your ministry/organization collaborating with other orgs/ministries around agriculture, or nutrition. Platforms, formal activities for doing so.

Optional additional questions for the assessment of financial and technical support provided to NGO's and private sector Ag Ext and Nut Ed service providers

9. What is the predominant source of funding for your programs? What is the typical length of a grant/funding source (1, 3-5 years, longer), is it renewable? If there are significant secondary sources list those as well. What topics are receiving the most funding? What are the major constraints/ challenges to funding?
10. Do you provide technical support to other agencies/organizations that provide Ag Ext and/or Nut Ed services? Does this technical support include integrated ag-nut approaches? Does it

include gender-responsive programming? Do you charge for providing this support? What do you see as the benefits and constraints of charging for this support?

11. Do you receive technical support from other agencies/organizations to help your organization to meet its mission of delivering AEAS and/or NEO services? If so, what type of technical support do you receive (probe about gender responsive support in each area)? Do you pay for this support? What do you see as the benefits and constraints of paying for this support?
12. Do you charge for providing AEAS and/or NEO technical services to farmers, farmer organizations, nutrition groups, or other organizations? What technical services do you charge for? How do you ensure quality of delivery? How is the fee set? What do you see as the benefits and constraints of charging for this support (probe on issue of women's access)?
13. What gaps (probe on gender-responsive) do you perceive in services being provided in the field? What do you feel is limiting?

APPENDIX E

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Appendix F



ASSESSMENT REVIEW WORKSHOP

AGENDA

Agricultural Extension, Nutrition Education, and Integrated Agriculture-Nutrition Services

Workshop held from 8:30am-1:15 pm on Wednesday, April 23, 2014, at Crossroads Hotel in Lilongwe, Malawi

<i>Time</i>	<i>Activity</i>	<i>Responsible</i>
8:30 am – 9:00 am	Registration	Catholic Relief Services
PLEASE TURN OFF YOUR CELL PHONES		
9:00 am – 9:15 am	Welcome and Opening Remarks	Stella Kankwamba, Director of Agricultural Extension Services, Department of Agricultural Extension Services, Ministry of Agriculture and Food Security
9:15 am – 9:30 am	Purpose of Assessment and Review	Martin Banda, Agricultural Specialist, USAID/Malawi
9:30 am – 10:00 am	Preliminary Findings: Agricultural Extension Systems Nutrition Education Systems	Grace Malindi, MEAS Team Member Theresa Banda, MEAS Team Member
10:00 am – 10:15 am	Questions and Answers	Grace Malindi, Theresa Banda
10:15 am – 10:30 am	Tea Break	
10:30 am – 10:45 am	Challenges and Opportunities	Vickie Sigman, MEAS Team John Peters, MEAS Team
10:45 am – 10:50 am	Clarifications	Vickie Sigman, John Peters
10:50 am – 11:00 am	Explanation of Group Work and Feedback	Theresa Banda
11:00 am – 11:30 am	Group Work	Participants/MEAS Team
11:30 am – 12:00 noon	Group Feedback	Participants/John Peters
12:00 noon – 12:15 pm	Closing Remarks	John Edgar, Deputy Office Chief, Sustainable Economic Growth, USAID/Malawi
12:15 pm – 1:15 pm	Lunch	



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4	MEAS Team	Vickie Sigman, John Peters, Theresa Banda, Grace Malindi		
27	TOTAL			

PRESENTATION: NUTRITION EDUCATION SYSTEMS




Assessment Review: Agricultural Extension, Nutrition Education, and Integrated Agriculture-Nutrition Extension Services

April 23, 2014
Crossroads Hotel, Lilongwe

Modernizing Extension and Advisory Services (MEAS) Team:
Theresa Banda, Grace Malindi, John Peters, Valerie Rhoe, Vickie Sigman





Nutrition Education Systems: Introduction

- High Chronic malnutrition (stunting)- 47.1% MDHS 2010.
- Multiple causes- insufficient nutrient intake and frequent infections
- Serious consequences of stunting especially from conception to 2 years

Nutrition Education Systems: Introduction

- **Scaling Up Nutrition:** global movement to prevent stunting that targets the **1st 1,000 days** of the child's life (conception to 2 yrs)
- Calling multiple partners to action; public, private, civil society, traditional leaders, development partners, religious etc

Public Sector Nut Ed Delivery: MoAFS

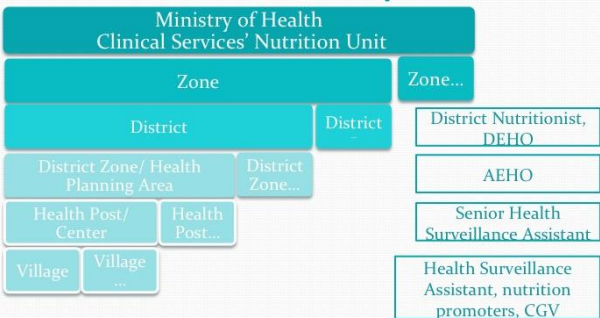


MoAFS main message: 6 Food Groups

The six food group to ensure dietary diversity



Public Sector Nut Ed Delivery: MoH



Nut Ed delivery methods

- Care Group Model
- PD/Hearth Session
- Growth monitoring sessions
- Community meetings such as Village Health committee
- Radio programme- *uko ndiko kudya*
- Home visit
- Exchange visits
- Campaigns on particular subject- breastfeeding week
- Demonstrations

7

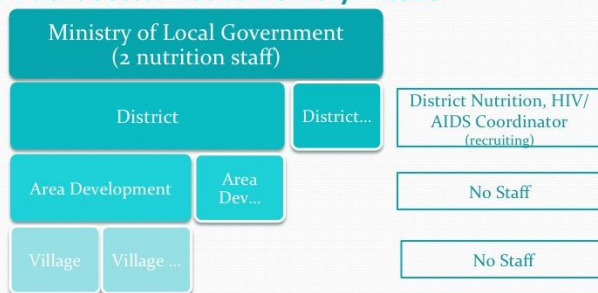
Public Sector Nut Ed Delivery - MoLG

3. MOLG- Local Services- Nutrition HIV and Aids Officer- Hq (2 officers in place)

- District- District Nutrition, HIV and Aids Coordinator (Recruitment in progress),
- Area Development – no staff for time being- Village- no staff yet
- Other ministries e.g Gender, Education have their own structures – makes coordination difficult
- Government established coordination department in Office of President and Cabinet (OPC)

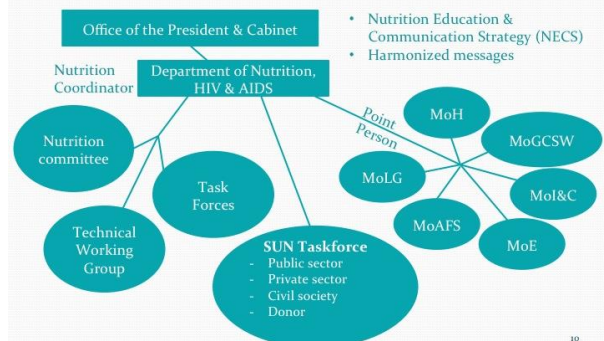
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Public Sector Nut Ed Delivery - MoLG



Coordination difficult as MoAFS, MoH, MoLG, Ministry of Gender, Children & Social Welfare and Ministry of Education have different structures

Public Sector Nut Ed Delivery: DNHA

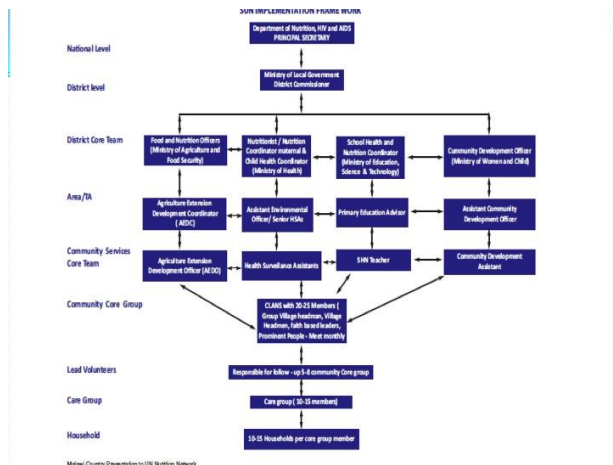


10

NECS and supporting materials



11



Water County Presentation to UN Nutrition Network

Civil Society : Integrated NE and Extension

- Different experiences from NGO partners implementing Nutrition education and integration with agriculture and health
 - Examples :
 1. NGOs collaborate with government use existing structures, joint planning and reviews, using frontline staff such as AEDO and HSA
 - Use of nutrition clubs, nutrition volunteers in care groups and Pd Hearth programme.
 - Volunteers training and provision of incentives

13

Civil Society : Integrated NE and Extension

- Support coordination and training at district and community levels-
- NGOs test approaches that are later scaled up and adopted by the public service: care group model, pass on approach

14

Private sector: Integrated Nut Ed & Ag Ext

- **Food fortification**
 - Iodized salt, sugar, vegetable oil with Vitamin A, maize flour
 - Associated messages through Fortification Alliance partners
- Part of SUN movement
- Use of schools for delivery of Nut Ed

17

Private sector: Integrated Nut Ed & Ag Extension

- Farmer associations/unions supporting, farmer cooperatives, clubs, lead farmers in production of high quality food and markets,
- NGOs support care group leaders/ members. obtain legumes seed using pass on approach
- Nutrition education in care group on processing and utilization of the legumes for good nutrition, storage, production and use of vegetables for diversified diets.

16

Civil Society : Integrated Nut Ed and Ag Ext

2. NGOs support implementation of NECS -SUN in the districts using the Care group model - through HSA, AEDO, - additional support : forestry assistants, Social Welfare assistants, (SWA) and CDA
- Some NGOs hire their own staff to work with government frontline staff to deliver nutrition education or an integrated package with agriculture and health

15

PRESENTATIONS: AGRICULTURAL EXTENSION SYSTEMS




Assessment Review: Agricultural Extension, Nutrition Education, and Integrated Agriculture-Nutrition Extension Services

April 23, 2014
Crossroads Hotel, Lilongwe

Modernizing Extension and Advisory Services (MEAS) Team:
Theresa Banda, Grace Malindi, John Peters, Valerie Rhoe, Vickie Sigman





1

Introduction

- Over the past several weeks, we have been talking with people from the
 - public (ministries, state actors),
 - private (agribusiness, for-profit firms, farmers, associations), and
 - civil society (NGOs, academe) sectors.
- We have been discussing agriculture extension and nutrition education and the integration of the two.
- Today's presentations are based on these discussions and review of related literature.
- Our findings are preliminary. If errors are made today, please forgive us.

2

The Public Extension System

Department of Agricultural Extension Services (DAES): main anchor of Public Extension System.

- DAES reaches farmers via
 - Agricultural Development Divisions (ADDs),
 - Districts,
 - Extension Planning Areas,
 - Sections, to
 - Villages.

3

The Public Extension System:

DAES reaches out to farmers by:

- Facilitation, coordination and the dissemination of improved technologies and practices from various programmatic areas such as:
 - Crop Production,
 - Land Resources Conservation,
 - Fisheries,
 - Animal Health and Livestock Development.

4

The Public Extension System: DAES Branches

DAES Provides Advisory Services through 5 main Extension Branches:

- Extension Methodology and Systems**
- Agricultural Communications**
- Agribusiness Development**
- Food and Nutrition:** ensuring that households achieve food and nutrition security through diversified production and diets.
- Agriculture Gender Roles and Support Services**

Food and Nutrition is clearly integrated within DAES Mandate and Mission.

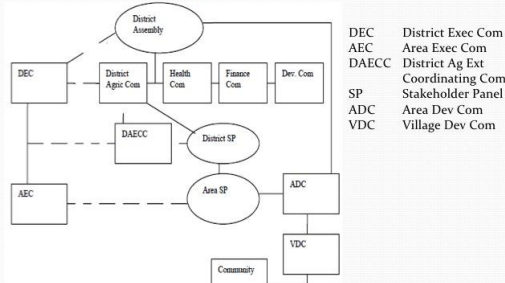
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The Public Extension System: The District Agricultural Extension Services System (DAESS)

- Ministry of Agriculture and Food Security (MOAFS) introduced DAESS:
- to align extension with decentralization structures and
- to facilitate demand-driven extension (farmers demands and needs flow up the system from the village to the district-level).

6

The DAESS (District Agricultural Extension Service System) Structure Linkage to District Structures



Channels for disseminating information & reaching farm families

- **Lead Farmer**
- **The Model Village**
- **Harmonized Demonstrations @ field level**
- **Farming Clusters for “Mndandanda”**
- **Open Days, Agriculture Fairs**
- **Exchange Visits**
- **Multi-Media with the use of:** Mobile Vans, Radio, SMS (text), Print – leaflets, newsletter etc, and District-level and EPA level resource centers

8

Private Extension System

- **Approaches:**
- **Working with individual farmers on contract basis**
 - on specific commodities: paprika, groundnuts and with assured market
 - extension support provided by the firm or association (sometimes working with GOM extension)
- **Out-grower partnerships**
 - Partnering with NGOs in paprika to facilitate farmer mobilization and market linkages with firm providing technical assistance by their extension workers
- **Extension organized Exchange Visits** between farmers for exposure

11

Private Extension System

- **Use of Positive Deviance model**
 - Extension worker facilitates group of innovative farmers to identify why they are successful
 - Successful behaviors copied by other farmers
 - Carried-out with sensitivity to social, cultural context
- **Involve GOM Extension** – invite them to trainings but depends on their interest and responsiveness
- **Supporting Farmers to Learn on firm land Demonstration Plots**
 - Farmers invited to estate, seed and a plot of land provided for hands-on-learning, technical assistance given from the firm extension agent
 - farmers can sell their product back to the firm,
 - farmers then grow on larger area on their own land providing higher quality supply of product which firm can access

Public Sector: Examples of Agriculture-Nutrition Integration

- **Some, not all, Agricultural Extension Development Officers (AEDOs) (front-line field staff) receive in-service training on nutrition**
 - At Lilongwe University of Agriculture and Natural Resources (LUANAR), short-courses supported by SUN (multi-sectoral team training)
 - Through various NGO projects
 - At Natural Resources College (NRC) as part of upgrading program
 - DAES Food & Nutrition Officers provide ad hoc training updates
- **Integration of Nutrition in AEDO's messages, nutrition is embedded**
 - Deliberate efforts to encourage farmers to produce nutrient-rich foods
 - ASWAP – nutrition is now a focus on ASWAP, particularly on nutrient-rich food

9

Public Sector: Examples of Agriculture-Nutrition Integration

- **Promotion of Backyard Gardens and Demonstrations**
 - Ensure farm HHs produce soya bean, groundnuts
 - Messages on how much food to sell, how much to keep for themselves, how much and how to store, utilization/preparation of foods (open days – done in villages)
- **Collaboration with Health Surveillance Assistants (HSAs) and Community Development Assistants (CDAs)**
 - In backyard gardens, six food groups, nutritious recipes
- **With NGOs,**
 - Mounting field days
 - Providing training for NGO program participants
 - Sharing materials

10

Private Extension System: Agriculture-Nutrition Integration

- Dealing with aflotoxins for safe consumption of groundnuts.
- Production of Ready to Use Foods for different populations (big market for this)

13

Civil Society Extension System

- Typically, NGOs use DAES staff to implement programs
- Some joint planning and training with HSAs, AEDOs, and NGOs through SUN
- NGO's help support DAES staff through training, mobility, logistics for meetings for various target groups, facilitate coordination
- NGO's develop pilot programs that may go to scale
- Increasingly they hire their own extension staff
- Use public sector methods such as lead farmer

14

Civil Society Agriculture-Nutrition Integration

- Creating tailored nutrition messages on what is being produced for consumption
- Developing capacity in food processing, preparation, and preservation by training AEDO's and Lead Farmers
- Promoting diversification of production and consumption – legumes, cassava, cassava leaves, millet, sorghum
- Integration of Nutrition and Disaster Reduction by promoting drought-tolerant and indigenous vegetables and other products (amarantha, chickens)

15

Civil Society Agriculture-Nutrition Integration

- Farmer Associations, CARE Groups, and Extension Staff linked
- SUN, as will be further described

16

Disclaimer

The presentation made possible by the generous support of the American people through the United States Agency for International Development, USAID, as part of the Modernizing Extension and Advisory Services project, MEAS.

The contents are the responsibility of the author(s) and do not necessarily reflect the views of USAID or the United States Government.

PRESENTATION: CHALLENGES AND OPPORTUNITIES



Assessment Review: Agricultural Extension, Nutrition Education, and Integrated Agriculture-Nutrition Extension Services

April 23, 2014
Crossroads Hotel, Lilongwe

Modernizing Extension and Advisory Services (MEAS) Team:
Theresa Banda, Grace Malindi, John Peters, Valerie Rhoe, Vickie Sigman



1

Key challenges identified by stakeholders

- Related to:
 - Personnel issues
 - Physical infrastructure/budget
 - Program quality and reach
 - Coordination/harmonization between actors
- Assessment confirms many challenges that are already known

2

Personnel issues

- Shortage of Agricultural Extension Development Officers (AEDO) in the field *****
- Over-reliance on AEDO's in too many roles and functions and lack of coordination
- Inadequate and inconsistent training of AEDO's
- Limited nutrition training for AEDO's
- Loss of top GOM workers to NGO's
- Need more women AEDO's/field workers
- Too much of AEDO's time tied up by heavy involvement in the FISP program

3

Personnel Issues

- MOAFS has no food & nutrition agents at the field level
- Health Surveillance Assistants (HSAs) sometimes prioritize other programs not nutrition
- Have not reached target number of HSAs
- HSAs need technical updates (refresher training)
- Inadequate training for other health staff (clinicians, nurses, Environmental Health Officers, District Nutritionists) (need for updates on emerging issues)

4

Infrastructure/budget issues

- Inadequate housing for AEDO's/field staff
- Many trainings cancelled due to budget problems
- Effective budget for implementation of GOM programs far short of projected budgets
- Mobility mobility mobility
- Training facilities in disrepair (Account #1)
- Seed quality and supply doesn't meet demand for nutrient-dense foods/new crops

5

Program quality and reach

- More and better coordinated training for lead farmers – many players using the lead farmer model
- Too many committees many of which are non-functional
- Going to scale with new technologies – needs GOM support
- Lack of diversity – maize, maize, maize
- Capturing nutrition information at the household level
- Old information in agricultural extension – needs updating

6

Coordination/harmonization between actors

- DAES needs to lead with a strong voice on issues of policy and new technologies
- Poor collaboration at the grass roots level
- Every ministry has its own set of committees
- Integration itself is difficult because so many stakeholders involved
- Farmers capacity to “demand” services is weak, particularly for nutrition-related services

Key opportunities identified by stakeholders

- ICT
- Capacity building at educational institutions
 - Expand ag-nut integration capacity at NRC and LUANA
 - Include short courses on nutrition
- Improve the model village and lead farmer approaches
- Further the link of Care Groups with farmer associations
- Promote the linkage between public, private and civil society organizations in planning ag extension/nutrition education programs
- Emerging middle-class opens doors for more nutritious food/high value crops

9

10

Possibilities

- Build on what exists
- Focus support on implementation – policies and strategies and structures exist
- Support fewer field agents but support them better
- Establish a coordination fund
- Prioritize joint planning, implementation, and monitoring at the field level because frontline workers (from ag, health, CD) serve the same community, best place to plan and act together
- Select key target districts and then scale up upon successful testing of programs

11

Coordination/harmonization between actors

- Overall lack of coordination of what the many actors are doing in development *****
- Unclear sometimes who should coordinate
- Limited comprehensive planning done within GOM
- Interaction occurs between various Ministries at the national level but far less at the local level
- Nutrition is less of a priority in the agriculture and gender sectors than it should be
- Illiteracy – farmer committee members tend to be literate creating a group of “elites”

8

Possibilities

- Establish a “think tank” to think outside the box for solutions to challenges (e.g., NGO’s implementing programs using GOM extension staff)
- Follow-up to support multi-sectoral teams, trained through SUN/LUANAR (Scaling Up Nutrition, Lilongwe University of Agriculture and Natural Resources)
- Support studies to investigate Extension Service Charters
- Develop case studies of replicable integration approaches

13

Possibilities

- Build on what exists
- Focus support on implementation – policies and strategies and structures exist
- Support fewer field agents but support them better
- Establish a coordination fund
- Prioritize joint planning, implementation, and monitoring at the field level because frontline workers (from ag, health, CD) serve the same community, best place to plan and act together
- Select key target districts and then scale up upon successful testing of programs

11

RESULTS OF GROUP WORK

QUESTION 1: What major programs or issues has this assessment missed?

Group 1

- Agri-business
- M&E at all levels and all sectors (public, private and civil society)
- Coordination structure for all players (all structures to meet/end at one point)
- Capacity building – training at the community level

Group 2

- Ministry of Local Government and Rural Development, Ministry of Gender
- NGO indicators to harmonize with MOAFS – harmonized M&E system
- Budgets for food and nutrition extension
- Data to back up claims – eg number of gaps in staff, loss of staff
- NGO structure? Systems? Scale? Areas? Staffing?
- Loss of Ag-Nut Extension – Home Care Workers (HCW) and Farm Home Assistants (FHA)
- Biodiversity as an opportunity

Group 3

- Effectiveness of various approaches (not clear)
- Cost implications of approaches and technologies
- Specific examples of technologies to be tested
- Impact of effectiveness of effort by various stakeholders – difficult to measure
- Assessment did not look at why partners work individually
- Policy challenges – Extension and Nutrition

QUESTION 2: What are your suggestions for integrating agricultural extension and nutrition education?

Group 1

- Extension methodologies should be adopted based on their impact on behavior change
- Need for a well-defined feedback mechanism/strategy for reflect trends and dynamics
- Need to equip extension staff and other front line workers with nutrition information in order to mainstream nutrition
- Need to have feedback mechanisms for dynamic and progress result/end
- Need to include integration of ag ext and nut ed in national and regional policies: to come out clear for possible support

Group 2

- Markets – create more awareness of diverse products and how to use them, which then increases supply/production of them

- Capacity building – (each sector) from production to consumption, concentrate extension on community-level
- Behavior change communication – message development for each sector – many messages at national-level, concentrate on extension at community-level
- Harmonize structure – using DNCC, DAECC – work together on the ground, not just Care Groups – do better showing nutrition in each sector
- Need better understanding of DAECC role in nutrition

Group 3

- Increase emphasis on behavior change and understanding barriers to good nutrition – move away from just information and messages
- Increase emphasis on the role of women in agriculture and link with existing efforts and coordination on gender/agriculture
- Support interventions with high impact on nutrition (eg, backyard gardens)
- Ongoing support for ICT and DAES as well as for DAESS in general
- Program for ongoing professional development DAES staff – local and international short courses
- Coordination at lower levels is not clear

Appendix G

STAKEHOLDER CHALLENGES AND OPPORTUNITIES

This appendix contains bullet points that summarize the comments from stakeholders during interviews and discussions conducted as part of this assessment. The points are essentially directly from the stakeholders and do not necessarily reflect the opinion of the authors. There are two sections with the first summarizing comments related to challenges faced and the second potential opportunities for further consideration.

1. CHALLENGES

A. Personnel and Capacity

- Shortage of Agricultural Extension Development Officers (AEDOs) in the field
- Over-reliance on AEDO's in too many roles and functions and lack of coordination
- Inadequate and inconsistent training of AEDOs
- Limited nutrition training for AEDO's
- Loss of top GOM workers to NGO's
- Need more women AEDO's/field workers
- Too much of AEDO's time tied up by heavy involvement in the FISP program
- MOAFS has no food & nutrition agents at the field level
- Health Surveillance Assistants (HSAs) sometimes prioritize other programs not nutrition
- Have not reached target number of HSAs
- HSAs need technical updates (refresher training)
- Inadequate training for other health staff (clinicians, nurses, Environmental Health Officers, District Nutritionists) and need for updates on emerging issues
- More training for lead farmers – different lead farmer approaches (who sets up) and responsibilities (single skills vs multiple skills)
- Young staff do not want to stay in the community, but at the district
- Field assistants were upgraded with diplomas so now believe they deserve better (larger houses, better maintenance, etc.)
- SMS messaging – relies on AEDO in collecting mobile phone numbers and submitting them to database
- Lack of power for AEDOs
- Training of staff- MOAFS want generalist, but demand-driven extension requires specialist, LUANAR are offering specialties with some general courses...don't see LUANAR going back to generalist curriculum
- Connecting nutritionist with job opportunities: Demand for graduates- graduating 40 students per year in the past 3-4 years. Know some are teaching in secondary schools, but those requiring one can't find a nutritionist even though there are nutritionists being trained
- Extension department and research not talking to each other so latest information not getting

to AEDOs

- Comfort zone of staff (need expertise of ag and nutrition, but they can't both be experts)
- No community nutrition workers...HSAs busy with other stuff
- Sometimes GOM jump onto issues too quickly (integration nutrition messages...AEDOs are not trained on care group modules) with limited job descriptions or tasks
- AEDO have a diploma or degree; HSAs do not. They are just given training so don't see each other as equals
- NGO need staff that have the mandate and knowledge to integrate ag-nut (regional level)

B. Infrastructure and Budget

- Inadequate housing for AEDO's/other field staff
- Many trainings cancelled due to budget problems
- Effective budget for implementation of GOM programs far short of projected budgets
- Mobility, mobility, mobility
- Training facilities in disrepair (Account #1)
- Staff don't want to participate in trainings meetings due to allowance issues
- NRC Facility designed for 680 students, now they are enrolling double that number
- Equipment: labs for food & nutrition
- ICT – for distance learning, for internal use (limited connectivity and bandwidth currently)
- NRC can't keep up with the demand: more students than they can accommodate coming in for Ag and Food & Nut diplomas (these are the 2 major programs). Need to expand. Particularly classrooms but also dorms, labs, seminar rooms
- NRC has an expansion plan – part of LUANR (Flanders provided for building some new classrooms)
- NRC needs more faculty to expand, books, other academic resources
- For accommodations, private sector around NRC can handle, but other infrastructure needs to be developed internally
- Seed quality and supply doesn't meet demand for nutrient-dense foods/new crops

C. Program Quality and Reach

- More and better coordinated training for lead farmers – many players using the lead farmer model
- Too many committees, many of which are non-functional
- Going to scale with new technologies – needs GOM support
- Lack of diversity – maize, maize, maize
- Capturing nutrition information at the household level
- Old information in agricultural extension – needs updating
- Large numbers of farmers to be reached
- Not enough Information, Education, Communication (IEC) materials
- Messages don't reach field as planned

- Overall lack of coordination of what the many actors are doing in development
- Unclear sometimes who should coordinate
- Committee members not clear about their role
- Nutrition is everyone's responsibility, so no one's responsibility
- Absence of a nutrition unit at the district or local level
- NRC ag curriculum, need to expand irrigation
- Nutrition module for extension workers does not address gender issues in group formation, benefits from nutrition applicable to agriculture (greater productivity, higher profits); current SUN messages and its application to agriculture such as breastfeeding module could discuss time for breastfeeding; Complimentary food could address planting for the time of complimentary feeding; Nutrition during pregnancy should include workload in the field, and diarrhea section could talk about livestock care/ maintenance for hygiene safety
- LIANAR short-course has no exam, students pass based on attendance so course not taken seriously
- SUN implementation/training: at district level, when there is agreement on the next steps and LUANAR Faculty follow-up, find out that when they return to the district, nothing has changed
- Lack of nutrition education around bio fortified crops
- Capacity in general, but capacity for training agriculture in nutrition in particular
- Overemphasis on smallholder farmers; ignoring medium to large scale farmers. AEDO don't have courage to come to medium/large scale farm
- Bad weather (drought) – found difficult to train on nutrition because food was not available
- Nutrition in other sectors is not taken as a priority (gender and agriculture particularly)
- Nutrition not coming out clear as it is in the extension services...go to the district level and funding is low - some nutrition-sensitive messages and indicators for tracking nutrition is not well defined.
- ICT is a challenge – even setting up a website for DNHA has been challenging

D. Coordination and Harmonization

- Overall lack of coordination of what the many actors are doing in development
- Unclear sometimes who should coordinate
- Limited comprehensive planning done within GOM
- Interaction occurs between various Ministries at the national level but far less at the local level
- Nutrition is less of a priority in the agriculture and gender sectors than it should be
- Illiteracy – farmer committee members tend to be literate creating a group of “elites”
- DAES needs to lead with a strong voice on issues of policy and new technologies
- Poor collaboration at the grass roots level
- Every ministry has its own set of committees
- Integration itself is difficult because so many stakeholders are involved
- Integration itself is very challenging because so many stakeholders have to be involved

- Lack of institutionalized structure and incentives for field level workers (AEDOs, HSAs, CDAs) to plan and coordinate in regards to nutrition
- Harmonized messages are good, but its application needs to be applicable to the entire sector
- District nutrition coordinating position not established/filled (sometimes another officer plays this role, but then seen as the sectors responsibility)
- Nutrition staff with Ministries salaries are paid differently (Some from DNHA, some from the line ministry); no budget line or hidden budget line for nutrition
- Disconnect between MOAFS and DNHA – lack of involvement
- Planning at the ADD level, focuses on separate departments (crops, nutrition, extension officers) identifying what to do and prioritize
- Cultural values – technology not adopting because of religious reasons. For example, rearing of pigs...but the religion bars rearing of pigs because of religion; when attend a meeting women are quiet because of religion. These need to be considered when planning and implementing
- DAEC not regularly meeting so its role in synchronizing approaches, coordinating new and existing programs is hindered
- SUN Stakeholder forum is not linked to the stakeholder panels in agriculture
- District Nutrition Coordinating Committee, where exists some are organized because they are funded by NGOs
- SUN training of District level staff: Those trained have a package of materials, but the community trainers manual is not yet final so they do not have it to roll-out the capacity
- Nutrition messaging – lot of members seeing SUN as a separate project from their other nutrition programs instead of seeing SUN as a movement within their other nutrition programs
- Timing and location of projects are different so hard to integrate
- Sectoral splits at the community level and district level
- The lack of capacity/understanding on how to integrate
- Within country programs, most university degree programs are siloed so staff are trained in one area...don't have agronomist work in nutrition and nutritionist working in ag programs so don't do integrated programs ...nutrition agents need to be able to talk about aflatoxin on nutrition as well as ag.
- staff don't want to participate in trainings meetings due to allowance issues
- government allowance are not harmonized which leads to conflicts
- Staff want to integrate, but don't know enough about the other field to know how to do it
- Gender mainstreaming, gender policies, coordination meetings at National level but no effort on the process for how the gender messages trickle to the communities, no monitoring.
- Suppose to have district and nutrition coordination committees facilitated by Ministry of Local Gov't but mainly not functioning

2. OPPORTUNITIES

A. Personnel and Capacity

- Expand the capacity at NRC and LUANA

- Further the linking of CG with farmer associations
- Second public sector extension agents to private sector for internships
- Improve on the lead farmer program

B. Infrastructure and Budget

- Promote solar panels for facilities with no electricity

C. Program Quality and Reach

- Advocacy with all sectors on importance of agriculture extension
- Expand role of ICT to reach many more people with health, nutrition and agriculture production messages
- Improve on the model village approach
- Emergence of middle-class creates a market for higher value products, more nutritious diverse diets
- Follow studies looking at Extension Service Charters to see how these are working
- LUANAR short-courses on nutrition for district staff could be a catalyst for initiating coordination at the district level. District level staff could attend at the same time; an output is a district implementation plan. Opportunity for follow-up to further support the “team” that has worked together.
- Select target districts to impact and then scale up upon successful implementation
- Bio fortified crops with nutrition ed
- Farmer field days (open days) include nutrition education
- Create awareness of why it is important for joint activities/integrations
- Communication strategies – how do we pass on the right messages to the right people

D. Coordination and Harmonization

- Interacting with NGOs and Public and Private Sectors in designing Extension outreach programs
- Support joint planning at the field level because frontline workers (from ag, health, cd) serve the same community, best place to plan and act together
- More integration of nutrition in ag interventions
- Open days are according to the ag calendar, less on when community needs to know about nutrition
- More discussion between NGOs and GOM on coordination and collaboration
- Linking Donor Committees with NGOs and GOM in the planning process
- Livestock programming with nutrition education (successful rabbit program, but don’t convey messages on eating rabbits, cooking rabbits)
- Need a coordinator who can bring together the integration
- Under I life did joint field visits...this is how they learned about the other sectors
- At the community level, still silo sectors, affects the way we package information. Community

members are getting different messages depending what groups they join.

- Major issue – network and coordination – gov’t and organization doing the same in his or her own way. Nutritional issues being coordinator (MOH, DNHA, MOAFS)---all bring in initiatives at different times (coordinating, networking...to reduce duplication)
- Promote the linkage between public, private and civil society organizations in planning ag extension/nutrition education programs
- Prioritize joint planning, implementation, and monitoring at the field level because frontline workers (from ag, health, CD) serve the same community, best place to plan and act together
- Select key target districts and then scale up upon successful testing of programs
- Link donor committees with NGOs and GOM in the planning process through existing mechanisms